

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

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 Neyagawa Techno Center 3F

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 +81-72-820-3079

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 +81-72-820-3095

SDS file name: SDS_EDT01_02EU



SAFETY DATA SHEET

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 num	ber
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 causes an allergic skin initation.
Precautionary stateme	nt (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 rush occurs: Get medical advice/attention.
P342+P311	If experiencing respiratory symptoms: Call a POISON SENTER or doctor/ physician.

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P305+P351+P338If IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses, if present and easy to do. Continue rinsing.P337+P313If eye initation persists: Get medical advice/attention.P362Take 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	H2O	18	40-60	-
56-81-5	200-289-5	-	Glycerin	C3H5(OH)3	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 shoule 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:	Aviod 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				

EDT01

No data available

Technical measures to prevent exposure:

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/cm3
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	No data available
	No data available May cause skin irritation and/or dermatitis.
Skin corrosion/irritation	
Skin corrosion/irritation	May cause skin irritation and/or dermatitis.
Skin corrosion/ irritation Serious eye damage/ irritation	May cause skin irritation and/or dermatitis.
Skin corrosion/ irritation Serious eye damage/ irritation	May cause skin irritation and/or dermatitis. Vapours may cause irritation to the eyes, respiratory system and the skin.
Skin corrosion/ irritation Serious eye damage/ irritation Respiratory or skin sensitization	May cause skin irritation and/or dermatitis. Vapours may cause irritation to the eyes, respiratory system and the skin.
Skin corrosion/ irritation Serious eye damage/ irritation Respiratory or skin sensitization	May cause skin irritation and/or dermatitis. Vapours may cause irritation to the eyes, respiratory system and the skin. Cause sensitization.
Skin corrosion/ irritation Serious eye damage/ irritation Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity	May cause skin irritation and/or dermatitis. Vapours may cause irritation to the eyes, respiratory system and the skin. Cause sensitization.
Skin corrosion/ irritation Serious eye damage/ irritation Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity	May cause skin irritation and/or dermatitis. Vapours may cause irritation to the eyes, respiratory system and the skin. Cause sensitization. No data available
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Skin corrosion/ irritation Serious eye damage/ irritation Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity IARC: No components of this product present at levels greated carcinogen by IARC.	May cause skin irritation and/or dermatitis. Vapours may cause irritation to the eyes, respiratory system and the skin. Cause sensitization. No data available
Skin corrosion/ irritation Serious eye damage/ irritation Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity IARC: No components of this product present at levels greated carcinogen by IARC.	May cause skin irritation and/or dermatitis. Vapours may cause irritation to the eyes, respiratory system and the skin. Cause sensitization. No data available er than or equal to 0.1% is identified as probable, possible or confirmed human
 Skin corrosion/ irritation Serious eye damage/ irritation Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity IARC: No components of this product present at levels greater carcinogen by IARC. Reproductive toxicity 	May cause skin irritation and/or dermatitis. Vapours may cause irritation to the eyes, respiratory system and the skin. Cause sensitization. No data available er than or equal to 0.1% is identified as probable, possible or confirmed human
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 Skin corrosion/ irritation Serious eye damage/ irritation Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity IARC: No components of this product present at levels greater carcinogen by IARC. Reproductive toxicity Specific target organ toxicity (STOT) - single exposure 	May cause skin irritation and/or dermatitis. Vapours may cause irritation to the eyes, respiratory system and the skin. Cause sensitization. No data available than or equal to 0.1% is identified as probable, possible or confirmed human No data available May cause respiratory irritation.
 Skin corrosion/ irritation Serious eye damage/ irritation Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity IARC: No components of this product present at levels greater carcinogen by IARC. Reproductive toxicity Specific target organ toxicity (STOT) - single exposure 	May cause skin irritation and/or dermatitis. Vapours may cause irritation to the eyes, respiratory system and the skin. Cause sensitization. No data available at than or equal to 0.1% is identified as probable, possible or confirmed human No data available May cause respiratory irritation.
 Skin corrosion/ irritation Serious eye damage/ irritation Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity IARC: No components of this product present at levels greater carcinogen by IARC. Reproductive toxicity Specific target organ toxicity (STOT) - single exposure 	May cause skin irritation and/or dermatitis. Vapours may cause irritation to the eyes, respiratory system and the skin. Cause sensitization. No data available r than or equal to 0.1% is identified as probable, possible or confirmed human No data available May cause respiratory irritation. The substance or mixture is not classified as specific target organ toxicant,
 Skin corrosion/ irritation Serious eye damage/ irritation Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity IARC: No components of this product present at levels greater carcinogen by IARC. Reproductive toxicity Specific target organ toxicity (STOT) - single exposure Specific target organ toxicity (STOT) - repeated exposure 	May cause skin irritation and/or dermatitis. Vapours may cause irritation to the eyes, respiratory system and the skin. Cause sensitization. No data available r than or equal to 0.1% is identified as probable, possible or confirmed human No data available May cause respiratory irritation. The substance or mixture is not classified as specific target organ toxicant,
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Skin corrosion/ irritation Serious eye damage/ irritation Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity IARC: No components of this product present at levels greated carcinogen by IARC. Reproductive toxicity Specific target organ toxicity (STOT) - single exposure Specific target organ toxicity (STOT) - repeated exposure Aspiration hazard	May cause skin irritation and/or dermatitis. Vapours may cause irritation to the eyes, respiratory system and the skin. Cause sensitization. No data available re than or equal to 0.1% is identified as probable, possible or confirmed human No data available May cause respiratory irritation. The substance or mixture is not classified as specific target organ toxicant, Repeated exposure.
Skin corrosion/irritation Serious eye damage/irritation Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity IARC: No components of this product present at levels greater carcinogen by IARC. Reproductive toxicity Specific target organ toxicity (STOT) - single exposure Specific target organ toxicity (STOT) - repeated exposure Aspiration hazard Potential health effects	May cause skin initiation and/or dermatitis. Vapours may cause irritation to the eyes, respiratory system and the skin. Cause sensitization. No data available than or equal to 0.1% is identified as probable, possible or confirmed human No data available May cause respiratory irritation. The substance or mixture is not classified as specific target organ toxicant, Repeated exposure. No data available

RTECS: Not available

12. Ecological information

Other disposal recommendations:

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 compa	artments: No data available		
Surface tension:	No data available		
Adsorption/ Desorption:	No data available		
12.5 Results of PBT and vPvB assessment			
This substa	nce is not considered to be persistent, bioaccumulating nor toxic (PBT).,		
This substa	nce 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		

No data available

SDS file no	mai SDS		Creation Date 201	4/10/20	EDT01	7/8
	SDS file name: SDS_EDT01_02EUCreation Date 2014. Transport information		4/10/30	EDIOI	770	
	-	rmation				
14.1 UN nu						
ADR/F			IMDG: -		IATA: -	
14.2 UN pro		-				
ADR/F		Not dangerous goods				
IMDG		Not dangerous goods				
IATA:		Not dangerous goods				
14.3 Transp		class (es)				
ADR/F	RID: -		IMDG: -		IATA: -	
14.4 Packing	g group					
ADR/F	RID: -		IMDG: -		IATA: -	
14.5 Enviro		zards				
ADR/F	RID: No		IMDG Marine pollut	ant: No	IATA: No	
14.6 Special	precaution	s for user				
				-	NR, IMDG-Code, ICAO/IATA	-DGR
14.7 Transp	ort in bulk	according to Annex II of	MARPOL73/78 and	the IBC Code		
Remar	ks		Not applicable			
15. Regul	atory info	ormation				
This safet	y datasheet o	complies with the requirem	ents of Regulation (EC	^c) No. 1907/2006.		
15.1 Safety,	health and	environmental regulation	ns/legislation specific f	for the substance or mixtur	e	
EU regul	ations					
Authoris	ations and/	or restrictions on use:		No data available		
Authoris	ations:			No data available		
Restrictio	ons on use:			No data available		
Other El	U regulation	IS:		No data available		
Informat	ion accordi	ng 1999/13/EC about lim	itation of emissions of	volatile organic compound	ls (VOC-guideline)	
National	regulations	(Germany):		No data available		
Restrictio	ons of occup	pation:				
Störfa	llverordnui	ng (12.BImSchV):		No data available		
Wasse	ergefährdur	ngsklasse (water hazard o	lass):	No data available		
Techn	ischeAnleit	ungLuft (TA-Luft):		No data available		
Other	regulations	s, restrictions and prohibi	ition regulations:	No data available		
15.2 Che	mical Safety	y Assessment				
No Chem	ical Safety A	Assessment has been carrie	ed out for this substance.	/mixture by the supplier.		
16. Other	informat	tion				
(i) Indicat	ion of chang	ges:				
Full tex	t of R-phras	es referred to under sectior	ns 2 and 3			
	R36/37/38	Irritating to eyes, respirat	ory system and skin.			
	R42	May cause sensitization	by inhalation			
	R/42/43	May cause sensitization	by inhalation and skin c	contact.		
	R43	May cause sensitization	by skin contact.			
	H315	Causes skin initation.				
	H317	May cause an allergic sk	in reaction.			
	H319	Causes serious eye irritat	ion.			
	H334	May cause allergy or ast	hma symptoms or breat	hing difficulties if inhaled.		
	11005	M	••			

H335 May cause respiratory initation.

(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

SDS file name: SDS_LDT01_02EU



SAFETY DATA SHEET

1. Identification of the subst	ance/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	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 allowed (Category 4)
H315	Causes skin irritation. (Category 2)
H319	Causes serious eye irritation. (Category 2)
Precautionary statemer	nt (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.
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.

Creation Date 2014/10/30

Labelling according to Directive 67/548/EEC

Hazard symbol (s):

seek medical advice.

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	NH ₂ C(=NH)NH ₂ · 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	H2O	18	20-40	-
9005-64-5	500-018-3	-	Polyoxyethylene sorbitan fatty acid ester	$C_{22}H_{42}O_3$	354.57	10-20	-
6976-37-0	230-237-7	-	Hydrochloride salts of aminoalcohol	C ₈ H ₁₉ 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.
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- **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

00	Evno	011100	oont	nola	
ð.2	Expo	sure	cont	rois	

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: 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**

Crustacea:

Algae/ aquatic plants:

It is stable at under normal hand	Iling conditions.		
10.3 Possibility of hazardous rea	ctions		
None			
10.4 Conditions to avoid			
Freezing, avoid direct rays of th	e sun.		
10.5 Incompatible materials			
None			
10.6 Hazardous decomposition	products		
Carbon monoxide, carbon diox	ide, nitrogen oxides		
11. Toxicological informa	tion		
11.1 Information on toxicologica			
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	a		
• •	Moderately irritant effect		
Respiratory or skin sensitizat	ion		
	No data available		
Germ cell mutagenicity			
	No data available		
Carcinogenicity			
	product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed hu	ıman	
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 initation.		
Signs and Symptoms of Expo	sure		
To the best of our knowledge, t	he chemical, physical, and toxicological properties have not been thoroughly investigated.		
Additional information			
RTECS: Not available			
12. Ecological information	1		
12.1 Toxicity			
Acute (short-term) toxicity:	No data available		
Fish:	No data available		
a .	X 1 1 1 1		

No data available

No data available

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Other organisms:				No data available		
Chronic (long-term) toxicity:			No data available		
Fish:	,			No data available		
Crustacea:				No data available		
Algae/ aquatic plan	ts:			No data available		
Other organisms:				No data available		
12.2 Persistence and de	egradability					
Abiotic Degradation				No data available		
	-chemical elimination:			No data available		
Biodegradation:				No data available		
12.3 Bioaccumulative	potential					
-	n-octanol/ water (log Kow):			No data available		
Bioconcentration fa	ctor (BCF):			No data available		
12.4 Mobility in soil						
Known or predicted	d distribution to environment	tal compa	rtments:	No data available		
Surface tension:		-		No data available		
Adsorption/ Desorp	otion:			No data available		
12.5 Results of PBT an	nd vPvB assessment					
				No data available		
12.6 Other adverse effe	ects					
				No data available		
12.7 Additional inform	nation					
				No information availab	le	
13. Disposal consid	derations					
13.1 Waste treatment	methods					
Product/Packaging	g disposal:		Offer surpl	us and non-recyclable sol	utions to a licensed dispos	sal company.
			Dispose of	as unused product.		
	e designations according to L	oW:	No data ava			
	levant information:		No data ava			
Sewage disposal-rel			No data ava	ailable		
Other disposal reco	mmendations:		No data ava	ailable		
14. Transport info	ormation					
14.1 UN number						
ADR/RID: -		MDG: -			IATA: -	
14.2 UN proper shippi	-					
ADR/RID:	Not dangerous goods					
IMDG:	Not dangerous goods					
IATA:	Not dangerous goods					
14.3 Transport hazard						
ADR/RID: -	I	MDG: -			IATA: -	
14.4 Packing group						
ADR/RID: -		MDG: -			IATA: -	
14.5 Environmental ha		D 21-				
ADR/RID: No		MDG Mar	ine pollutant	: No	IATA: No	
14.6 Special precaution						
	Not dangerous goods in the	-			LAO/IATA-DGR	
14.7 Transport in bulk	according to Annex II of MA	AKPOL73	5/78 and the	IBC Code		
	No information available					

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	f 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 te	ext of R-phrases referred to	under sections 2 and 3
	R22	Harmful if swallowed.
	R36/38	Irritating to eyes and skin
Full te	ext 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 initation
	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

SDS file name: SDS_MDT01_02EU

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SAFETY DATA SHEET

1. Identification of the substa	ance/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	e substance or mixture and uses advised against
Relevant identified uses	: Professional uses [SU22], Laboratory chemicals [PC21]
1.3 Detail of the supplier of the sa	fety 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	r
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):

$\langle ! \rangle$

Signal word:	Warning
Hazard statement (s):	:
H315	Causes skin imaitation (Category 2)
H319	Causes serious eye irritation. (Category 2)
Precautionary statem	ent (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 initation persists: Get medical advice/attention.
P362	Take off contaminated clothing and wash before reuse.
2.3 Other hazards	
Not applicable.	

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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	H2O	18	80-98	-
139-33-3	205-358-3	-	Disodium ethylenediamine tetraacetate	C10H16N2O8Na2	336.24	1-5	-
151-21-3	205-788-1	-	Sodium lauryl sulfate	CH3(CH2)11OSO3Na	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

SDS file name: SDS_MDT01_	_02EU C	reation Date 2014/10/30	MDT01
6.2 Environmental precautions			
Do not let product enter drains.			
6.3 Methods and material for co	ntainment and clea	ning up	
6.3.1 For containment:	Keep in suitable	e, closed containers for disposal.	
6.3.2 For cleaning up:	Wipe up with a	bsorbent material.	
6.3.3 Other information:	No data availa	ble	
6.4 Reference to other sections			
For disposal see section 13.			
7. Handling and storage			
7.1 Precautions for safe handling	g		
Protective measures:	_	Avoid contact with skin and e	eyes. Avoid inhalation of vapour or mis
Measures to prevent fire:		Normal measures for prevent	ive fire protection.
Measures to prevent aerosol a	and dust generatior	: No data available	
Measures to protect the envir	conment:	No data available	
Advice on general occupational hygiene:		No data available	
7.2 Conditions for safe storage, i	ncluding any incon	patibilities	
Technical measures and stora	age conditions:	Store in room temperature (15	5-28°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 solution	tions:	No data available	

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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

1 2 1 1	
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
2 Other safety information	

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

Creation Date 2014/10/30

SDS me name. SDS_wD101_0		Date 2014/10/30	WID 101	37
11. Toxicological informati	ion			
11.1 Information on toxicological	effects			
Acute toxicity				
	No data available			
Skin corrosion/irritation				
	May be harmful if absorb	ed through skin. Causes ski	n irritation.	
Serious eye damage/ irritation				
	Cause serious eye irritatio	on.		
Respiratory or skin sensitization				
	No data available			
Germ cell mutagenicity				
	No data available			
Carcinogenicity				
	roduct present at levels greater	than or equal to 0.1% is iden	ntified as probable, possible or confirm	med human
carcinogen by IARC.				
Reproductive toxicity				
	No data available			
Specific target organ toxicity (S				
	No data available.			
Specific target organ toxicity (S				
A	No data available			
Aspiration hazard	No dote emilable			
D.4	No data available			
Potential health effects Inhalation	May be bereful if inheled	d. Causes respiratory tract irr	itation	
	May be harmful if swallo		nauon.	
Ingestion Skin	-	weu. wed through skin. Causes skir	imitation	
Eyes	Causes serious eye irritati		I IIItauon.	
Signs and Symptoms of Expos	•			
		1 and toxicological propertie	s have not been thoroughly investiga	ited
Additional information	rredge, the cherment, physical	i, und to neological property	s nuve not been utorouginy investiga	
RTECS: Not available				
12. Ecological information				
12.1 Toxicity				
Acute (short-term) toxicity:		No data avail	able	
Fish:		No data avail	able	
Crustacea:		No data avail	able	
Algae/ aquatic plants:		No data avail	able	
Other organisms:		No data avail	able	
Chronic (long-term) toxicity:		No data avail	able	
Fish:		No data avail	able	
Crustacea:		No data avail	able	
Algae/ aquatic plants:		No data avail	able	
Other organisms:		No data avail	able	
12.2 Persistence and degradability	y			
Abiotic Degradation:		No data avail	able	
Physical- and photo-chemical e	elimination:	No data avail	able	
Biodegradation:		No data avail	able	
12.3 Bioaccumulative potential				

SDS file name: SDS_	MDT01_02EU Crea	tion Date 2014/10/30) MDT01	6 / 7
Partition coefficient	n-octanol/ water (log Kow):	No	o data available	
Bioconcentration fa	-		o data available	
12.4 Mobility in soil		1.0		
-	l distribution to environmental c	ompartments: No	o data available	
Surface tension:		1	o data available	
Adsorption/ Desorp	tion:		o data available	
12.5 Results of PBT an		1.0		
		No	o data available	
12.6 Other adverse effe	ects			
		Ha	armful to aquatic life.	
12.7 Additional inform	ation		•	
		No	o information available	
13. Disposal consid	lerations			
13.1 Waste treatment r				
Product/ Packaging		Offer surplus an	nd non-recyclable solutions to a licensed disp	osal company
i rouder i uninging	m posta	Dispose of as u		iosu company.
Waste codes/ Waste	designations according to LoW:	-	-	
Waste treatment-rel		No data availab		
Sewage disposal-rel		No data availab	le	
Other disposal reco		No data availab		
-				
14. Transport info	rmation			
14.1 UN number		~		
ADR/RID: -	IMDO	j: -	IATA: -	
14.2 UN proper shippin				
ADR/RID:	Not dangerous goods			
IMDG:	Not dangerous goods			
IATA:	Not dangerous goods			
14.3 Transport hazard		2	14 5 4	
ADR/RID: -	IMDO	J: -	IATA: -	
14.4 Packing group	вир	7	IATA	
ADR/RID: -	IMDO	J: -	IATA: -	
14.5 Environmental ha			14TA-N-	
ADR/RID: No		G Marine pollutant: No	IATA: No	
14.6 Special precaution		wine of ADD/DID AD		
147 Transa and in harlls		-	NR, IMDG-Code, ICAO/IATA-DGR	
14.7 Transport in bulk	according to Annex II of MARF No information available		Cone	
15. Regulatory info			007/0002	
	complies with the requirements of			
	environmental regulations/legis	auon specific for the s	substance or mixture	
EU regulations		N	1. 411	
	or restrictions on use:		o data available	
		No	o data available	
Authorisations:		N .T	a data availabla	
Authorisations: Restrictions on use:			o data available	
Authorisations: Restrictions on use: Other EU regulation		No	o data available o data available e organic compounds (VOC-guideline)	

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 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 ter	kt of H-phras	es 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.
:) Abbe	victions and	0.00001730001

(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

SDS file name: SDS_WDT01_02EU



SAFETY DATA SHEET

1. Identification of the subst 1.1 Product identifier	ance/mixture and of the company/undertaking
Product name	: Wash Buffer WDT-01
Product number	: WDT-01
Product usage	: QuickGene DNA tissue kit: Wash Buffer
1.2 Relevant Identified uses of th	ne substance or mixture and uses advised against
Relevant identified uses	: Professional uses [SU22], Laboratory chemicals [PC21]
1.3 Detail of the supplier of the s	afety 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 numb	er
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_2O	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

6.1 Personal precautions, protective equipment and emergency procedures		
6.1.1 For non-emergency person	nel	
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 contain	inment 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. No data available Measures to prevent aerosol and dust generation: 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

8.1 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

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o) Partition coefficient: n-octanol/ water:	No data available
p) Auto-ignition temperature:	None
q) Decomposition temperature:	No data available
r) Viscosity:	Equivalent to the water
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

Skin corrosion/irritation

Serious eye damage/ irritation

Respiratory or skin sensitization

No data available

Germ cell mutagenicity

No data available

None

None

None

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.	
$\label{eq:specific target organ toxicity} (STOT) \text{-} repeated exposure}$		
	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:	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	
	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 disp	
	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

IATA: - IATA: - IATA: - IATA: No MDG-Code, ICAO/IATA-DGR		
IATA: - IATA: - IATA: No IMDG-Code, ICAO/IATA-DGR		
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IATA: No IMDG-Code, ICAO/IATA-DGR		
IATA: No IMDG-Code, ICAO/IATA-DGR		
IMDG-Code, ICAO/IATA-DGR		
IMDG-Code, ICAO/IATA-DGR		
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2006.		
tance or mixture		
ta available		
No data available		
No data available		
No data available		
ganic compounds (VOC-guideline)		
ta available		
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No data available		
the supplier		
la Ia la la	lata available lata available rganic compounds (VOC-guideline) lata available lata available lata available lata available	

(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

SDS file name: SDS_CDT01_02EU



SAFETY DATA SHEET

1. Identification of the subst	ance/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.

C.	AS No.	EC No.	REACH Registration No.	Name	Formula	Molecular Weight (g/mol)	Weight (%)	Classification
77	32-18-5	231-791-2	-	Water	H ₂ 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 person	mel			
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	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 environ	ment:	No data available		
Advice on general occupational hygiene: N		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.		
0 0	and vocala			
Requirements for storage rooms	s and vessels:	Keep container tightly closed in a dry and well-ventilated place.		
7.3 Specific end use (s)		Laboratory abarriada		
		Laboratory chemicals		
Industrial sector specific solution	18:	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

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

o) Partition coefficient: n-	octanol/ water:	No data available
p) Auto-ignition temperat	ture:	None
q) Decomposition temper	ature:	No data available
r) Viscosity:		Equivalent to the water
s) Explosive properties:		No data available
t) Oxidizing properties:		No data available
9.2 Other safety information	l	
No data available		
10. Stability and reactivity		
10.1 Reactivity		
It is stable at under normal handling	g conditions.	
10.2 Chemical stability		
It is stable at under normal handling	g conditions.	
10.3 Possibility of hazardous reaction	ons	
None		
10.4 Conditions to avoid		
Freezing, avoid direct rays of the su	ın.	
10.5 Incompatible materials		
None		
10.6 Hazardous decomposition pro	ducts	
Carbon monoxide, carbon dioxide,		
	C	
11. Toxicological information	n	
11.1 Information on toxicological ef		
Acute toxicity		
v	None	
Skin corrosion/irritation		
	None	
Serious eye damage/ irritation		
~	None	
Respiratory or skin sensitization		
respiratory of shirt sensitization	No data available	
Germ cell mutagenicity		
Gerni een muugenetty	No data available	
Carcinogenicity		
	luct present at levels oreater	than or equal to 0.1% is identified as probable, possible or confirmed human
carcinogen by IARC.	net present a to vers greater	
Reproductive toxicity		
Reproductive tostetty	No data available	
Specific target organ toxicity (ST		
Specific target organ toxicity (51	No data available.	
Specific target organ toxicity (ST		
Specific target organ which (ST	No data available	
Aspiration hazard		
Aspirauon nazaro No data available		
Potential health effects	No data available	
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 comp	partments: 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			
	NT 1 / 111			

No data available

IMDG: -

14. Transport information	
14.1 UN number	

Other disposal recommendations:

ADR/RID: - **14.2 UN proper shipping name** ADR/RID: Not dangerous goods IATA: -

SDS file name: SDS	_CDT01_02EU	Creation Date 2014/10/30	CDT01	
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:

- (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

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