# KKURABO

## SAFETY DATA SHEET

## QuickGene SP kit DNA whole blood (SP-DB)

Name of substance	Classification acc. to GHS	Pictograms
Protease EDB-01	Skin Irrit. 2: H315	
	Eye Irrit. 2: H319	
	Resp. Sens. 1: H334	
	STOT SE 3: H335	• •
Lysis Buffer LDB-04	Acute Tox. 4: H302	
	Skin Irrit. 2: H315	
	Eye Irrit. 2: H319	$\mathbf{v}$
Wash Buffer WDB-03		
Elution Buffer CDB-02		

## KURABO INDUSTRIES LTD.

## **Bio-Medical Department**

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

#### Date of issue: 6/19/2019

Product identifier:	
Product name:	Protease
Product code:	EDB-01
SDS NO:	EDB01_US_1
Details of the supplier of the safety dat	ta sheet
Manufacturer/Supplier:	KURABO INDUSTRIES LTD.
Address:	Advanced Technology Center, 14-30 Shimokida-cho, Neyagawa, Osaka, 572-0823 JAP.
Division:	Bio-Medical department
Telephone number:	+81-72-820-3079
FAX:	+81-72-820-3095
Relevant identified uses of the substar	nce or mixture and uses advised against
Relevant identified uses of the produ	ct: Reagents for automated nucleic acid isolation system
Uses advised against: For research us	se only

## Safety Data Sheet

GHS classification and label elements of the product	
Classification of the substance or mixtur	e
HEALTH HAZARDS	Skin corrosion/irritation: Category 2
	Serious eye damage/eye irritation: Category 2
	Respiratory sensitization: Category 1
	Specific target organ toxicity - single exposure: Respiratory tract irritation Category 3

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

#### Label elements



Signal word:

#### . \_\_\_\_

HAZARD STATEMENT H315 Causes skin irritation

H319 Causes serious eye irritation

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

H335 May cause respiratory irritation

#### PRECAUTIONARY STATEMENT

### Prevention

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P284 In case of inadequate ventilation wear respiratory protection. (as specified by the manufacturer/supplier or the competent authority.)

P271 Use only outdoors or in a well-ventilated area.

P264 Wash contaminated parts thoroughly after handling.

P280 Wear protective gloves.

 ${\sf P280 Wear \ eye \ protection}/face \ protection.$ 

## Response

P312 Call a POISON CENTER or doctor/physician if you feel unwell.

P342 + P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P302 + P352 IF ON SKIN: Wash with plenty of soap and water.

P332 + P313 If skin irritation occurs: Get medical advice/attention.

 $\mathsf{P362}$  +  $\mathsf{P364}$  Take off contaminated clothing and wash it before reuse.

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

 ${\sf P337} + {\sf P313} \text{ If eye irritation persists: Get medical advice/attention.}$ 

- Storage
- P403 Store in a well-ventilated place. P233 Keep container tightly closed.

Mixture

Disposal

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

#### 3. Composition/information on ingredients

Ingredient name	Content(%)	CAS No.
Protease	95 <	9080-56-2

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

The components not described in this component table are not listed in EU CLP (Classification,

labelling and packaging of substances and mixtures/table3-1 ECNO6182012) and HCS/HazCom 2012.

## 4. First-aid measures

Descriptions of first-aid measure	9S
IF INHALED	Remove person to fresh air and keep comfortable for breathing.
	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician
IF ON SKIN(or hair)	Wash with plenty of soap and water.
	If skin irritation occurs: Get medical advice/attention.
IF IN EYES	Rinse cautiously with water for several minutes. Remove contact lenses,
	if present and easy to do. Continue rinsing.
	If eye irritation persists: Get medical advice/attention.
IF SWALLOWED	Rinse mouth.
	Call a POISON CENTER or doctor/physician if you feel unwell.

#### 5. Fire-fighting measures Extrine mula himer

Exunguishing media		
Suitable	extinguishing	media

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Use appropriate extinguishing media suitable for surrounding facilities.

#### 6. Accidental release measures

Personnel precautions, protective equipment and emergency procedures Ventilate area after material pick up is complete. Wear an air-supplied respirator for a poor/non ventilated spill. Wear proper protective equipment. Environmental precautions Avoid raising dust. Methods and materials for containment and cleaning up Ventilate area after material pick up is complete.

Fill the disposal into labelled, closable containers.

#### 7. Handling and storage

## Precautions for safe handling Preventive measures (Exposure Control for handling personnel) Avoid breathing dust/fume. Safety Measures/Incompatibility Use only outdoors or in a well-ventilated area. Wear protective gloves. Wear eye protection/face protection. Conditions for safe storage, including any incompatibilities Recommendation for storage Store in a well-ventilated place. Keep container tightly closed. Keep cool. Protect from sunlight. Storage temperature upper limit: 28°C

8. Exposure controls/personal protection

**Control parameters** 

#### Adopted value

No ACGIH values available

#### Exposure controls

Appropriate engineering controls

- Exhaust/ventilator should be available.
  - Eye wash station should be available.
- Washing facilities should be available.

Individual protection measures

Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Hand protection

Wear protective gloves.

Eye protection

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

Skin and body protection

Wear protective clothing.

Safety and Health measures

Wash … thoroughly after handling.

Take off contaminated clothing and wash it before reuse.

Wash hands thoroughly after handling.

Information on basic physical and chemical properties

#### 9. Physical and Chemical Properties

information on basic physical and chemical properties		
Physical properties		
Appearance:	Solid (Freeze-dry protease)	
Color:	Pale yellow	
Odor:	Mild odor	
Solubility		
Solubility in water:	Soluble	

#### 10. Stability and Reactivity

Chemical stabilityStable under normal storage/handling conditions.Incompatible materialsOxidizing agents

## 11. Toxicological Information

## Information on toxicological effects

- No Acute toxicity data available
- No Irritant properties data available
- No Allergenic and sensitizing effects data available
- No Mutagenic effects data available
- No Carcinogenic effects data available
- No Teratogenic effects data available
- No reproductive toxicity data available
- No STOT-single/repeated exposure data available
- No Aspiration hazard data available

## 12. Ecological Information

#### Toxicity

- No Aquatic toxicity data available
- No Persistence and degradability data available
- No Bioaccumulative potential data available
- No Mobility in soil data available
- Ozone depleting chemical data not available

#### 13. Disposal considerations

#### Waste treatment methods

Dispose of contents/container in accordance with local/national regulation. Avoid raising dust.

Avoid release to the environment (- if this is not the intended use).

#### 14. Transport Information

UN No, UN CLASS

Not applicable to UN NO.

#### 15. Regulatory Information

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

## Data N.A.

#### Other regulatory information

We are not able to check up other regulatory information in regard to the substances in your country or region, therefore we request this matter would be filled by your responsibility.

## 16. Other information

#### GHS classification and labelling

Skin Irrit. 2: H315 Causes skin irritation

Eye Irrit. 2: H319 Causes serious eye irritation

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

STOT SE 3: H335 May cause respiratory irritation

#### **Reference Book**

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 19th edit., 2015 UN Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012) 2012 EMERGENCY RESPONSE GUIDEBOOK(US DOT) 2017 TLVs and BEIs. (ACGIH) http://monographs.iarc.fr/ENG/Classification/index.php Supplier's data/information GESTIS-Stoffdatenbank HCS/HazCom 2012 (29 CFR 1910.1200) Pub Chem (OPEN CHEMISTRY DATABASE) General Disclaimer The GHS classification data given here is based on EU CLP, 2017 & US HCS, 2012.

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

The GHS classification data given here is based on current EU official data (EU CLP published in 01.01.2017) and HCS/HazCom 2012 (29 CFR 1910.1200).

## Date of issue 6/19/2019

entification of the substance/mixture and	of the company/undertaking
Product identifier:	
Product name:	Lysis Buffer
Product code:	LDB-04
SDS NO:	
	LDB04_JPE_1.1
Details of the supplier of the safety dat	
Manufacturer/Supplier:	KURABO INDUSTRIES LTD.
Address:	Advanced Technology Center, 14-30 Shimokida-cho, Neyagawa, Osaka, 572-0823 JAF
Division:	Bio-Medical department
Telephone number:	+81-72-820-3079
FAX:	+81-72-820-3095
Relevant identified uses of the substa	nce or mixture and uses advised against
Relevant identified uses of the produc	ct: Reagents for automated nucleic acid isolation system
Uses advised against: For research us	se only
zards identification	
GHS classification and label elements of	f the product
Classification of the substance or mixtur	•
HEALTH HAZARDS	Acute toxicity Oral: Category 4
HEALTH HAZARDO	Skin corrosion/irritation: Category 2
	Serious eye damage/eye irritation: Category 2
(Note) GHS classification	without description: Not applicable/Out of classification/Not classifiable
Label elements	
Circuit a successful	<b>•</b>
Signal word:	Warning
HAZARD STATEMENT	
H302 Harmful if swallowed	
H315 Causes skin irritatio	
H319 Causes serious eye	
	Irritation
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PRECAUTIONARY STATE	
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PRECAUTIONARY STATE Prevention	
PRECAUTIONARY STATE Prevention	MENT parts thoroughly after handling.
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PRECAUTIONARY STATE Prevention P264 Wash contaminated P280 Wear protective glov P280 Wear eye protection	MENT parts thoroughly after handling. res. /face protection.
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## 3. Composition/information on ingredients

Mixture/Substance selection

Mixture

Ingredient name	Content(%)	CAS No.
Guanidine hyrochloride	30-50	50-01-1
polyoxyethylene sorbitan fatty acid ester	5-10	-
hydrochloride salts of aminoalcohol	1-5	-
Water	Balance	7732-18-5

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

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

#### 4. First-aid measures

Descriptions of first-aid measures	Rescuers should wear proper personal protective equipment suitable for situation.		
IF INHALED	Remove person to fresh air and keep comfortable for breathing.		
	Call a POISON CENTER or doctor/physician if you feel unwell.		
IF ON SKIN(or hair)	Remove contaminated clothing. Wash with plenty of soap and water.		
	If skin irritation occurs: Get medical advice/attention.		
IF IN EYES	Rinse cautiously with water for several minutes. Remove contact lenses,		
	if present and easy to do. Continue rinsing.		
	If eye irritation persists: Get medical advice/attention.		
IF SWALLOWED	Rinse mouth.		
	Call a POISON CENTER or doctor/physician if you feel unwell.		
5. Fire-fighting measures			
Extinguishing media			
Suitable extinguishing media	Carbon dioxide, dry chemical and protein based foam.		
Extinguishing media to avoid	None.		
Special fire fighting	Keep personnel removed from and upwind of fire. Water runoff can damage		
	the environment.		

Procedures	
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## Protection of fire-fighters Wear adequate personal protective equipment.

#### 6. Accidental release measures

#### Personnel precautions, protective equipment and emergency measures

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

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

## Environmental precautions

Prevent from entering into soil, waterways and ground water.

distance.

#### Clean-up methods and materials and containment measures

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

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

#### 8. Exposure controls/personal protection

### Engineering measures

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

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

#### Hygiene measures

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

#### 9. Physical and Chemical Properties Information on basic physical and chemical properties Physical properties Appearance: Liquid Color: Colourless to light yellow, Clear Odor: Practically odourless pH: 6 Approx. Not flammable Flash point: Not flammable Auto-ignition temperature Solubility Completely soluble Solubility in water: 10. Stability and Reactivity Chemical stability Stable under normal storage/handling conditions. Conditions to avoid Freezing. Protect against direct sunlight. Hazardous decomposition products CO, CO2 Nitrogen oxides (NOx). 11. Toxicological Information Acute toxicity Harmful if swallowed. TestResults Acute OralLD50Rat:> 500mg/kg Skin corrosion/irritation moderate Serious eyedamage/eye irritation weakly irritant Substances in group [1;2A;2B] by IARC(International Agencyfor Research onCancer):None Carcinogenicity 12. Ecological Information Bioaccumulation Not established. Mobilityinsoil Not established. Otherhazardous effects Not established 13. Disposal considerations When your own wastewater treatment plant is not available, collect entire waste and then charge to a licensed industrial waste management professional with manifests for industrial waste. Follow the laws and regulations in your country while disposing of this product or waste. 14. Transport Information UN No, UN CLASS Not applicable to UN NO. Marine transportation is regulated by IMDG Code. Air transportation is regulated by IATA Dangerous Goods Regulations. IMDG Not regulated as dangerous goods. ΙΑΤΑ Not regulated as dangerous goods. 15. Regulatory Information Law concerning the Examination and Regulation of Manufacture etc. of Chemical Substances **Class 1 Specified Chemical Substance:** Not regulated. **Class 2 Specified Chemical Substance:** Not regulated. Type 1 Monitoring Chemical Substance: Not regulated. Type 2 Monitoring Chemical Substance: Not regulated. Type 3 Monitoring Chemical Substance: Not regulated. Industrial Safety and Health Law Dangerous Substances Flammable: Not regulated. Dangerous Substances Flammable Gases: Not regulated. Dangerous Substances Oxidizing: Not regulated. Dangerous Substances Explosives: Not regulated. Dangerous Substances Ignitable: Not regulated. Harmful Substances Carcinogen: Not regulated. Class 1 Designated Chemical Substances: Not regulated. Class 2 Designated Chemical Substances: Not regulated.

Not regulated.

Class 3 Designated Chemical Substances:

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

### 16. Other information

GHS classification and labelling Acute Tox. 4: H302 Harmful if swallowed Skin Irrit. 2: H315 Causes skin irritation

Eye Irrit. 2: H319 Causes serious eye irritation

### Reference Book

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN Recommendations on the TRANSPORT OF DANGEROUS GOODS 19th edit., 2015 UN Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012) JIS Z 7252:2014, JIS Z 7253:2012

NITE CHRIP (http://www.safe.nite.go.jp/japan/sougou/view/SystemTop\_jp.faces)

#### **General Disclaimer**

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

Date of issue 6/19/2019

Product identifier:         Wash Buffer           Product code:         WDB-03           SDS NO:         WDB03, JPE [, 1]           Details of the supplier of the safety data sheet         Manufacturer/Supplier:           Manufacturer/Supplier:         KURABO INDUSTRIES LTD.           Address:         Advanced Technology Center, 14-30 Shimokida=cho, Neyagawa, Osaka, 572-0823           Division:         Bio-Medical department           Telephone number:         +81-72-820-3005           FAX:         +81-72-820-3005           Relevant identified uses of the product: Reagents for automated nucleic acid isolation system         Uses advised against:           Relevant identified uses of the product: Reagents for automated nucleic acid isolation system         Uses advised against:           Classification and bale lements of the product:         Classification           Otto against:         For escarch use only           azards identified uses of the product:         Classification           Classification and bale lements of the product         Classification           Classification of use selection         Mixture           Mixture/Substance selection         Mixture           Mixture/Substance selection         Mixture           Isodium chloride         0.5 - 1.5         7847-14 - 5           water         Ingredient	ntification of the substance/mixture and	of the company/undertal	king		
Product code:     WDB-03 SDS NO:       Details of the suppler of the safety data sheet       Manufacturer/Supplier:     KURABO INDUSTRIES LTD.       Address:     Address:       Product and the safety data sheet       Manufacturer/Supplier:     KURABO INDUSTRIES LTD.       Address:     Address:       Product and the safety data sheet       Division:     Bio-Medical department.       Telephone number:     +81-72-820-3095       Relevant identified uses of the substance or mixture and uses advised against.       Relevant identified uses of the product against:       Classification of       GHS classification of the substance or mixture       Classification of the substance or mixture       No signal word       amposition /information on ingredients       Mixture/Substance selection					
SDS Norm         WDB03_UPE_1.1           Details of the supplier of the safety data sheat         KURABO INDUSTRES LTD.           Address:         Advanced Technology Center, 14-30 Shimekida-cho, Neyagawa, Osaka, 572-0023           Division:         Bio-Medical department           Telephone number:         41-72-200-3015           FAX:         +11-72-200-3015           Relevant identified uses of the substance or mixture and uses advised against:           Relevant identified uses of the product: Respents for automated nucleic acid isolation system           Uses advised against: For research use only           zards identification           GHS classification and label elements of the product           No Signal word           mompatition/information on ingredients           Mixture/Substance selection         Mixture           identification differences previous and business greater than 1% of the total are listed.           retid measures         Rescuers should wear proper personal protective equipment suitable for situation or for should substances greater than 1% of the total are listed.           IF IN EYES         Rines cautiously with water for searcent interviousle of a void wear proper personal protective equipment suitable for situation persists: Get medical advice/attention.           IF IN KIKIC         Renove person to frash air and keep comfortable for breathing.           Call a DOISON CENTER or doctor/physician if you fe					
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Manufacturer/Supplier         KURABO INDUSTRIES LTD.           Address:         Advanced Technology Center, 14-30 Shimokida-cho, Nayagawa, Osaka, 572-0823           Division:         Bio-Medical department           Telephone number:         +81-72-820-3095           Relevant identified uses of the substance or mixture and uses advised against:         Relevant identified uses of the product: Resgents for automated nucleio acid isolation system           Uses advised against:         For research use only           zards identification         Mixture and uses advised against:           Advised against:         For research use only           zards identification         Mixture           Mixture/ Substance or mixture         No hazard pictogram           No Signal word         Mixture           Mixture/Substance selection         Mixture           Water         100-1.5         7047-14-5           Water         Desard pictogram         No Signal word           Mixture/Substance selection         Mixture         2045 No.           Vate:         Ingredient name         Content(\$)         7732-18-5           Not:         The figures shown above are not the speciations of the product.         Generally chemical substances greater than 1% of the total are listed.           te-aid measures         Rescuers should wear proper personal protactive equi					
Address:     Advanced Technology Center, 14-30 Shimokida-cho, Neyagawa, Osaka, 572-0823       Division:     Bio-Medical department       Telephone number:     +81-72-820-3095       FAX:     +81-72-820-3095       Character of the substance or mixture and uses advised against:     For research use only       Uses advised against: For research use only					
Division:       Bio-Medical department         Telephone number:       +81-72-820-3075         FAX:       +81-72-820-3075         Relevant identified uses of the substance or mixture and uses advised against         Relevant identified uses of the product Regents for automated nucleic acid isolation system         Uses advised against: For research use only         zarda identification         GHS classification and label elements of the product         Classification of the substance or mixture         No hazard pictogram         No Signal word         mposition/information on ingredients         Mixture/Substance selection         Mixture         Value         isodium chloride         0.5 - 1.5         Value         isodium chloride         0.5 - 1.5         Value         Querce         Value         isodium chloride         0.5 - 1.5         Total measures         Descriptions of first-aid m	••				
Teisphone number:       +81-72-820-3095         FR2:       -81-72-820-3095         Relevant identified uses of the substance or mixture and uses advised against:       Relevant identified uses of the product: Respents for automated nucleic acid isolation system         Uses advised against: For research use only				nokida−cho, Neyagawa, C	)saka, 572-0823 JA
FAX:     +81-72-82-3095       Relevant identified uses of the substance or mixture and uses advised against.     Relevant identified uses of the product: Respents for automated nucleic acid isolation system       Uses advised against: For research use only     Uses advised against: For research use only       uzards identification     HS       Classification and label elements of the product     Classification       Lossification of the substance or mixture     Not applicable to GHS classification       Label elements     No hazard pictogram       No Signal word     Mixture       ingredients     OAS No.       sodium chloride     0.5 - 1.5       iduation     1.7 2647-14-5       Water     Balance       isodium chloride     0.5 - 1.5       outcer     Generally chemical substances greater than 1% of the total are listed.       st-aid measures       Descriptions of first-aid measures       Rescuers should wear proper personal protective equipment suitable for situation occur: Get medical advice/attention.       If Sinse cautiously with water for several minutes. Remove contaminated oloting. Wash with plenty of scap and water.       If sinse cautiously with water for several minutes. Remove contaminated oloting. Wash with plenty of scap and water.       If sinse cautiously with water for several minutes. Remove contaminated oloting. Wash with plenty of scap and water. <td< td=""><td></td><td>•</td><td>ent</td><td></td><td></td></td<>		•	ent		
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IF INHALED       Remove person to fresh air and keep comfortable for breathing.         Call a POISON CENTER or doctor/physician if you feel unwell.         IF ON SKIN(or hair)       Remove contaminated clothing. Wash with plenty of soap and water.         If skin irritation occurs: Get medical advice/attention.         IF IN EYES       Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.         IF SWALLOWED       Rinse mouth.         Call a POISON CENTER or doctor/physician if you feel unwell.         e-fighting measures         Extinguishing media         Suitable extinguishing media         Special fire fighting         Keep personnel removed from and upwind of fire. Water runoff can damage the environment.         Procedures       Dike and collect water used to fight fire Evacuate area and fight fire from a safe distance.		Rescuers should we	ar proper personal p	rotective equipment sui	table for situation
IF ON SKIN (or hair)       Call a POISON CENTER or doctor/physician if you feel unwell.         IF ON SKIN (or hair)       Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention.         IF IN EYES       Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.         IF SWALLOWED       Rinse mouth. Call a POISON CENTER or doctor/physician if you feel unwell.         e-fighting measures       Extinguishing media         Suitable extinguishing media       Carbon dioxide, dry chemical and protein based foam.         Extinguishing media       Keep personnel removed from and upwind of fire. Water runoff can damage the environment.         Procedures       Dike and collect water used to fight fire Evacuate area and fight fire from a safe distance.	•				
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IF IN EYES       Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.         IF swallowed       If eye irritation persists: Get medical advice/attention.         IF swallowed       Rinse mouth.         Call a POISON CENTER or doctor/physician if you feel unwell.         e-fighting measures         Extinguishing media         Suitable extinguishing media         Suitable extinguishing media         Special fire fighting         Keep personnel removed from and upwind of fire. Water runoff can damage the environment.         Procedures       Dike and collect water used to fight fire Evacuate area and fight fire from a safe distance.			-		valor.
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re-fighting measures         Extinguishing media         Suitable extinguishing media         Carbon dioxide, dry chemical and protein based foam.         Extinguishing media to avoid         Special fire fighting         Keep personnel removed from and upwind of fire. Water runoff can damage the environment.         Procedures         Dike and collect water used to fight fire Evacuate area and fight fire from a safe distance.	IF SWALLUWED				
Extinguishing media       Carbon dioxide, dry chemical and protein based foam.         Suitable extinguishing media       Carbon dioxide, dry chemical and protein based foam.         Extinguishing media to avoid       None.         Special fire fighting       Keep personnel removed from and upwind of fire. Water runoff can damage the environment.         Procedures       Dike and collect water used to fight fire Evacuate area and fight fire from a safe distance.		Gall a POISON CEN	IER or doctor/phys	ician it you teel unwell.	
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Procedures Dike and collect water used to fight fire Evacuate area and fight fire from a safe distance.	Extinguishing media Suitable extinguishing media Extinguishing media to avoid	None.			an damage
distance.	Extinguishing media Suitable extinguishing media Extinguishing media to avoid	None. Keep personnel remo			an damage
	Extinguishing media Suitable extinguishing media Extinguishing media to avoid Special fire fighting	None. Keep personnel remo the environment.	oved from and upwir	nd of fire. Water runoff o	_
Protection of fire-fighters Wear adequate personal protective equipment.	Extinguishing media Suitable extinguishing media Extinguishing media to avoid Special fire fighting	None. Keep personnel remo the environment. Dike and collect wat	oved from and upwir	nd of fire. Water runoff o	-

## Safety Data Sheet

#### 6. Accidental release measures

#### Personnel precautions, protective equipment and emergency measures

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

#### Environmental precautions

Prevent from entering into soil, waterways and ground water.

#### Clean-up methods and materials and containment measures

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

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

#### 8. Exposure controls/personal protection

#### Engineering measures

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

Personal protective equipment	
Respiratory protection	Wear suitable respiratory protection.
Hand protection	Wear suitable gloves.
Eye protection	Use eye protection. Use face shield in case of splash risk.
Skin and body protection	Wear suitable protective clothing.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.

#### 9. Physical and Chemical Properties

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

## 10. Stability and Reactivity

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

#### 11. Toxicological Information

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

#### 12. Ecological Information

Bioaccumulation
Mobilityinsoil
Otherhazardous effects

Not established. Not established. Not established

	astewater treatment plant is		ect entire waste and then charge to a licensed industrial waste low the laws and regulations in your country while disposing of th
Fransport Informatic	n		
UN	No, UN CLASS	Not applicable to l	JN NO.
Marine transport	ation is regulated by IMDG Co	ode. Air transporta	tion is regulated by IATA Dangerous Goods Regulations.
IMI	IG N	lot regulated as d	angerous goods.
IAI	<b>A</b> N	lot regulated as d	angerous goods.
Regulatory Informati	on		
Law concerning	the Examination and Regulat	ion of Manufactur	e etc. of Chemical Substances
Cla	ss 1 Specified Chemical Subs	stance:	Not regulated.
Cla	ss 2 Specified Chemical Subs	stance:	Not regulated.
Тур	e 1 Monitoring Chemical Sub	stance:	Not regulated.
Тур	e 2 Monitoring Chemical Sub	stance:	Not regulated.
Тур	e 3 Monitoring Chemical Sub	stance:	Not regulated.
Industrial Safety	and Health Law		
Dar	gerous Substances Flammab	le:	Not regulated.
Dar	gerous Substances Flammab	le Gases:	Not regulated.
Dar	gerous Substances Oxidizing	;:	Not regulated.
Dar	gerous Substances Explosive	es:	Not regulated.
Dar	gerous Substances Ignitable:		Not regulated.
Har	mful Substances Carcinogen:		Not regulated.
Cla	ss 1 Designated Chemical Su	bstances:	Not regulated.
	ss 2 Designated Chemical Su		Not regulated.
	ss 3 Designated Chemical Su		Not regulated.
	ss 1 Organic Solvents Prepar		Not regulated.
	ss 2 Organic Solvents Prepar		Not regulated.
	ss 3 Organic Solvents Prepar		Not regulated.
	ifiable Substance:		Not regulated.
	eling Requirements:		Not regulated.
	ers:		Not regulated.
	eleterious Substances Cont	rollow	Not regulated.
	cified Poisonous Substance		Not regulated.
•	cified Poisonous Substance		Not regulated.
-	sonous Substances – Main La		Not regulated.
	sonous Substances - Cabine		Not regulated.
	eterious Substances - Main I		Not regulated.
	eterious Substances - Main I		-
			Not regulated.
	orcement Order Article 32-2:		Not regulated.
	orcement Order Article 32–3 Considered Reisensus:		Not regulated.
	Considered Poisonous: Considered Deleterious:		Not regulated.
			Not regulated.
	inet Order, Preparations:		Not regulated.
Fire Service Law			NI
	ss 1 Oxidizing Solids:		Not regulated.
	ss 2 Flammable Solids:		Not regulated.
	ss 3 Spontaneous combustibi	lity and	Not regulated.
	ter-reactivity Substances:		Not regulated.
	ss 4 Flammable Liquids:		Not regulated.
	ss 5 Self-Reactive Substance	es:	Not regulated.
	ss 6 Oxidizing Liquids:		Not regulated.
Des	ignated Flammable Substanc	es:	Not regulated.
	rage Reporting Substance:		Not regulated.
Japan PRTR		-+	Not as a late d
-	cific Class 1 Designated Sub	stance:	Not regulated.
	ss 1 Designated Substance:		Not regulated.
Cla	ss 2 Designated Substance:		Not regulated.

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

## 16. Other information

## Reference Book

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

### **General Disclaimer**

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

## Date of issue 6/19/2019

Product identifier:				
Product name:	Elution Buffer			
Product code:	CDB-02			
SDS NO:	WDB03_JPE_1.1			
Details of the supplier of the safety da	ta sheet			
Manufacturer/Supplier:	KURABO INDUSTRI	ES LTD.		
Address:	Advanced Technolog	gy Center, 14–30 Shir	nokida-cho, Neyagawa, (	Osaka, 572–0823 JAF
Division:	Bio-Medical departm	nent		
Telephone number:	+81-72-820-3079			
FAX:	+81-72-820-3095			
Relevant identified uses of the substa	ance or mixture and use	s advised against		
Relevant identified uses of the produ	ict: Reagents for automat	ted nucleic acid isola	tion system	
Uses advised against: For research u	se only			
zards identification	<b>C</b> · · · · ·			
GHS classification and label elements of				
Classification of the substance or mixtu				
Not applicable to GHS class	ification			
Label elements				
No hazard pictogram				
No Signal word				
mposition/information on ingredients				
Mixture/Substance selection	Mixture			
	WIIXLUI C			
	WIXCULE			
Ingredie	nt name	Content(%)	CAS No.	
Ingredie Water		Content(%) 80-100	CAS No. 7732-18-5	
Water		80-100		
Water Note : The figures shown	nt name	80-100 ations of the product.	7732-18-5	
Water Note : The figures shown	above are not the specifica	80-100 ations of the product.	7732-18-5	
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Water Note : The figures shown Generally chemica	above are not the specifica	80-100 ations of the product. 1% of the total are liste	7732-18-5	uitable for situation.
Water Note : The figures shown Generally chemica st-aid measures	above are not the specifica al substances greater than Rescuers should we	80-100 ations of the product. 1% of the total are liste ear proper personal p	7732-18-5 d.	
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Water         Note : The figures shown         Generally chemica         st-aid measures         Descriptions of first-aid measures         IF INHALED         IF ON SKIN (or hair)         IF IN EYES         IF SWALLOWED         e-fighting measures         Extinguishing media	above are not the specificate al substances greater than Rescuers should we Remove person to f Call a POISON CEN Remove contaminate If skin irritation occ Rinse cautiously wite if present and easy If eye irritation person Rinse mouth. Call a POISON CEN	80-100 ations of the product. 1% of the total are liste ear proper personal p fresh air and keep co ITER or doctor/phys ed clothing. Wash w urs: Get medical adv th water for several i to do. Continue rinsi sists: Get medical ad ITER or doctor/phys	7732-18-5 ad. protective equipment su protective equipment su prote	;. water. ict lenses,
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## Safety Data Sheet

#### 6. Accidental release measures

#### Personnel precautions, protective equipment and emergency measures

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

#### Environmental precautions

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#### Clean-up methods and materials and containment measures

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	Safehandling advice	See Section 10 (Stability and reactivity).
Storage	Suitable storage conditions	Protect from sunlight. Keep container tightly closed.
	Safepackagingmaterials	Use plastic container that have enough toughness.

#### 8. Exposure controls/personal protection

#### Engineering measures

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Personal protective equipment			
Respiratory protection	Wear suitable respiratory protection.		
Hand protection	Wear suitable gloves.		
Eye protection	Use eye protection. Use face shield in case of splash risk.		
Skin and body protection	Wear suitable protective clothing.		
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.		

#### 9. Physical and Chemical Properties

Information	on basic physical and chemi	cal properties
Physical prop	perties	
	Appearance:	Liquid
	Color:	Colourless, Clear
	Odor:	Odourless
	pH:	9
	Flash point:	Not flammable
	Auto-ignition temperature	Not flammable
Solubility		
	Solubility in water:	Completely soluble
Viscosity		Like water

#### 10. Stability and Reactivity

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

#### 11. Toxicological Information

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

#### 12. Ecological Information

Bioaccumulation
Mobilityinsoil
Otherhazardous effects

Not established. Not established. Not established

		ect entire waste and then charge to a licensed industrial waste llow the laws and regulations in your country while disposing of this
ransport Information		
UN No, UN CL	ASS Not applicable to l	JN NO.
Marine transportation is regu	lated by IMDG Code. Air transporta	tion is regulated by IATA Dangerous Goods Regulations.
IMDG	Not regulated as d	angerous goods.
ΙΑΤΑ	Not regulated as d	angerous goods.
legulatory Information		
	ation and Regulation of Manufactur	re etc. of Chemical Substances
Class 1 Specifi	ed Chemical Substance:	Not regulated.
Class 2 Specifi	ed Chemical Substance:	Not regulated.
Type 1 Monitor	ing Chemical Substance:	Not regulated.
Type 2 Monitor	ing Chemical Substance:	Not regulated.
Type 3 Monitor	ing Chemical Substance:	Not regulated.
Industrial Safety and Health		
	stances Flammable:	Not regulated.
-	stances Flammable Gases:	Not regulated.
0	stances Oxidizing:	Not regulated.
-	stances Explosives:	Not regulated.
-	stances Ignitable:	Not regulated.
0	inces Carcinogen:	Not regulated.
	ated Chemical Substances:	Not regulated.
-	ated Chemical Substances:	Not regulated.
-	ated Chemical Substances:	Not regulated.
-		-
	c Solvents Preparations:	Not regulated.
-	c Solvents Preparations:	Not regulated.
-	c Solvents Preparations:	Not regulated.
Notifiable Subs		Not regulated.
Labeling Requir	ements:	Not regulated.
Others:		Not regulated.
Poisonous and Deleterious		
	nous Substance – Main Law:	Not regulated.
•	nous Substance – Cabinet Order:	Not regulated.
	stances – Main Law:	Not regulated.
Poisonous Sub	stances – Cabinet Order:	Not regulated.
Deleterious Su	bstances – Main Law:	Not regulated.
Deleterious Su	bstances – Cabinet Order:	Not regulated.
Enforcement O	rder Article 32–2:	Not regulated.
Enforcement O	rder Article 32-3:	Not regulated.
Not Considered	Poisonous:	Not regulated.
Not Considered	Deleterious:	Not regulated.
Cabinet Order,	Preparations:	Not regulated.
Fire Service Law		
Class 1 Oxidizi	ng Solids:	Not regulated.
Class 2 Flamma	able Solids:	Not regulated.
Class 3 Sponta	neous combustibility and	Not regulated.
	ty Substances:	Not regulated.
Class 4 Flamma		Not regulated.
	eactive Substances:	Not regulated.
Class 6 Oxidizi		Not regulated.
	mmable Substances:	Not regulated.
Storage Report		Not regulated.
Japan PRTR	ing Substance:	NUL I Egulaleu.
•	1 Designated Substance:	Not regulated
	-	Not regulated.
-	ated Substance:	Not regulated.
Glass 2 Design	ated Substance:	Not regulated.

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

## 16. Other information

## Reference Book

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

### **General Disclaimer**

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