KKURABO

SAFETY DATA SHEET

QuickGene DNA Tissue Kit S (DT-S)

Name of substance	Classification acc. to GHS	Pictograms
Proteinase K EDT-01	Skin Irrit. 1: H317	
	Resp. Sens. 1: H334	
Lysis Buffer LDT-01	Acute Tox. 4: H302	
	Skin Irrit. 2: H315	
	Eye Irrit. 2: H319	\mathbf{v}
Tissue Lysis Buffer MDT-01	Skin Irrit. 2: H315	
	Eye Irrit. 2: H319	
	STOT SE 2: H371	
	Aquatic Acute 2: H401	• •
Wash Buffer WDT-01		
Elution Buffer CDT-01		

KURABO INDUSTRIES LTD.

Bio-Medical Department

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Date of issue: 07/05/2018

	of the company/undertaking
Product identifier:	
Product name:	Protease
Product code:	EDT-01
SDS NO:	EDT01_JPE_1
Details of the supplier of the safety dat	
Manufacturer/Supplier:	KURABO INDUSTRIES LTD.
Address:	Neyagawa Techno Center, 14-5 Shimokida-cho, Neyagawa, Osaka, 572-0823 JAPAN
Division:	Bio-Medical department
Telephone number:	+81-72-820-3079
FAX:	+81-72-820-3095
	ance or mixture and uses advised against
	ct: Reagents for automated nucleic acid isolation system
Uses advised against: For research u	-
ards identification	
GHS classification and label elements of	of the product
Classification of the substance or mixtur	re
HEALTH HAZARDS	Respiratory sensitization: Category 1
	Skin corrosion/irritation: Category 1
(Note) GHS classification v	without description: Not applicable/Out of classification/Not classifiable
Label elements	
	^
Signal word:	Danger
HAZARD STATEMENT	
HAZARD STATEMENT H317 May cause an aller	gic skin reaction.
H317 May cause an aller	-
H317 May cause an aller	or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an aller H334 May cause allergy	or asthma symptoms or breathing difficulties if inhaled.
H317 May cause an aller, H334 May cause allergy PRECAUTIONARY STATE Prevention	or asthma symptoms or breathing difficulties if inhaled. EMENT
H317 May cause an aller; H334 May cause allergy PRECAUTIONARY STATE Prevention P280 Wear protective glo	or asthma symptoms or breathing difficulties if inhaled. EMENT oves.
H317 May cause an aller, H334 May cause allergy PRECAUTIONARY STATE Prevention P280 Wear protective glo P280 Wear eye protectio	or asthma symptoms or breathing difficulties if inhaled. EMENT oves. n/face protection.
H317 May cause an aller, H334 May cause allergy PRECAUTIONARY STATE Prevention P280 Wear protective glo P280 Wear eye protectio P261 Avoid breathing du	or asthma symptoms or breathing difficulties if inhaled. EMENT oves. in/face protection. st/fume/gas/mist/vapours/spray.
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H317 May cause an aller H334 May cause allergy PRECAUTIONARY STATE Prevention P280 Wear protective glo P280 Wear eye protectio P261 Avoid breathing du P272 Contaminated work P284 Wear respiratory p	or asthma symptoms or breathing difficulties if inhaled. EMENT oves. on/face protection. st/fume/gas/mist/vapours/spray. & clothing should not be allowed out of the workplace.
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H317 May cause an aller; H334 May cause allergy PRECAUTIONARY STATE Prevention P280 Wear protective glo P280 Wear eye protectio P261 Avoid breathing du P272 Contaminated work P284 Wear respiratory pr Response P302 + P352 IF ON SKIN: P304 + P340 IF INHALED P333 + P313 If skin irrita	or asthma symptoms or breathing difficulties if inhaled. EMENT oves. in/face protection. st/fume/gas/mist/vapours/spray. < clothing should not be allowed out of the workplace. rotection. Was P312 Call a POISON CENTER or doctor/physician if you feel unwell. : Remove person to fresh air and keep comfortable for breathing. tion or rash occurs: Get medical advice/attention.
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Ingredient name	Content(%)	CAS No.
Proteinase K	>= 1 - < 10	39450-01-6

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

Descriptions of first-aid measures	8
IF INHALED	Remove person to fresh air and keep comfortable for breathing.
	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physicial
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. Do not induce vomiting.
	Do not give milk or alcoholic drinks.
	If you are unconscious, never give anything by mouth.
	Call a POISON CENTER or doctor/physician if you feel unwell.

May cause allergy, asthma, or breathing difficulty if inhaled.

5. Fire-fighting measures	
Extinguishing media	
Suitable extinguishing media	Use appropriate extinguishing media suitable for surrounding facilities.
Unsuitable extinguishing media	water jet
Hazardous combustion products	Harmful combustion products are not known.
Protection of firefighters	Wear adequate personal protective equipment

6. Accidental release measures

Ventilate area after material pick up is complete.

Wear an air-supplied respirator for a poor/non ventilated spill.

Refer to the protective measures described in items 7 and 8.

Environmental precautions

Keep away from drains, surface and ground water.

Stop leak and spill after checking safety.

If the outflow is remarkable and can not be recovered, it must be reported to the local government.

Methods and materials for containment and cleaning up

Absorb with an inert absorbent (eg, sand, silica gel, acidic binder, universal binder, sawdust).

Place in an appropriate container, discard it, and leave it closed.

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.	
Smoking, eating and drinking are prohibited in the work 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	
Contact avoidance	
Strong bases, strong oxidants, nitric acid, peroxides	

8. Exposure controls/personal protection

Control parameters

Ingredient name	CAS No.	Indicator (Exposure form)	Source
Proteinase K	39450-01-6		Roche Industrial Hygiene Committee (RIHC)

Exposure controls Appropriate engineering controls General ventilation. Individual protection measures Respiratory protection In case of inadequate ventilation wear respiratory protection. Hand protection Wear protective gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. In the case of wanting to use the gloves again, clean them before taking off and air them well. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Eye protection Wear safety glasses with side-shields or chemical safety goggle. Skin and body protection Wear protective clothing. Safety and Health measures Take off contaminated clothing and wash it before reuse. Wash hands thoroughly after handling.

9. Physical and Chemical Properties

Information on basic physical and chemical properties			
Physical properties			
Appearance:	liquid		
Color:	colourless, clear		
Odor:	odourless		
рН	7.5		
density	1.126 g/cm3		
Solubility			
Solubility in water:	Completely soluble		
	completely conduct		

10. Stability and Reactivity

Chemical stability	Stable under normal storage/handling conditions.		
Conditions to avoid	No data		
Incompatible materials	Strong base, Strong oxidizing agent, nitric acid, Peroxide		

11. Toxicological Information

Information on toxicological effects	
No Acute toxicity data available	
Skin corrosion/irritation	
Shall not be classified as corrosive/irritant to skin.	
Serious eye damage/eye irritation	
Shall not be classified as seriously damaging to the eye or eye irritant.	
Steam can irritate the eyes, the respiratory system and the skin.	
Respiratory or skin sensitisation	
May cause irritation / dermatitis on the skin.	
May cause an allergic skin reaction.	
Respiratory sensitisation	
May cause allergy or asthma symptoms or breathing difficulties if inhaled.	
Germ cell mutagenicity	
Classification could not be established because:	
Data are lacking, inconclusive, or conclusive but not sufficient for classification.	
Carcinogenicity	
Classification could not be established because:	
Data are lacking, inconclusive, or conclusive but not sufficient for classification.	
Reproductive toxicity	
Classification could not be established because:	
Data are lacking, inconclusive, or conclusive but not sufficient for classification.	

Specific target organ toxicity - single exposure Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification. Specific target organ toxicity - repeated exposure Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification. Aspiration hazard Classification could not be established because: Data are lacking, inconclusive, or conclusive but not sufficient for classification.

12. Ecological Information

Ecotoxicity	Data are not available.
Residuality / degradability	Data are not available.
Bioaccumulation	Data are not available.
Mobilityinsoil	It is not considered to adsorb to the soil
Hazard to the ozone layer	Not applicable
Otherhazardous effects	Data are not available.

13. Disposal considerations

Waste treatment methods

Residual waste

Do not contaminate ponds, waterways, or grooves with chemicals or used containers. We consign to an authorized waste disposal contractor. If you obey local regulations, it can be disposed of as wastewater. **Contaminated containers and packaging** Empty the remaining containers Dispose of in the same way as containers containing products. Empty containers shall be consigned to a licensed waste disposer for recycling or disposal. Do not reuse empty containers.

14. Transport Information

Marine transportation is regulated by IMDGCode. Air transportation is regulated by IATADangerousGoodsRegulations.

IMDG	
IATA	

Not regulated as dangerous goods. Not regulated as dangerous goods.

UN No, UN CLASS not subject to transport regulations

Transport in bulk according to Annex II of MARPOL and the IBC Code

The cargo is not intended to be carried in bulk.

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.
Industr	rial Safety and Health Law	
	Dangerous Substances Flammable:	Not regulated.
	Dangerous Substances Flammable Gases:	Not regulated.
	Dangerous Substances Oxidizing:	Not regulated.
	Dangerous Substances Explosives:	Not regulated.
	Dangerous Substances Ignitable:	Not regulated.
	Harmful Substances Carcinogen:	Not regulated.
	Class 1 Designated Chemical Substances:	Not regulated.
	Class 2 Designated Chemical Substances:	Not regulated.
	Class 3 Designated Chemical Substances:	Not regulated.
	Class 1 Organic Solvents Preparations:	Not regulated.
	Class 2 Organic Solvents Preparations:	Not regulated.
	Class 3 Organic Solvents Preparations:	Not regulated.
	Notifiable Substance:	Not regulated.
	Labeling Requirements:	Not regulated.
	Notifiable Substance:	Not regulated.

Others:	Not regulated.
Poisonous and Deleterious Substances Control Law	
Specified Poisonous Substance - Main Law:	Not regulated.
Specified Poisonous Substance - Cabinet Order:	Not regulated.
Poisonous Substances – Main Law:	Not regulated.
Poisonous Substances – Cabinet Order:	Not regulated.
Deleterious Substances – Main Law:	Not regulated.
Deleterious Substances – Cabinet Order:	Not regulated.
Enforcement Order Article 32-2:	Not regulated.
Enforcement Order Article 32-3:	Not regulated.
Not Considered Poisonous:	Not regulated.
Not Considered Deleterious:	Not regulated.
Cabinet Order, Preparations:	Not regulated.
Fire Service Law	
Class 1 Oxidizing Solids:	Not regulated.
Class 2 Flammable Solids:	Not regulated.
Class 3 Spontaneous combustibility and	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 PRTR	
Specific Class 1 Designated Substance:	Not regulated.
Class 1 Designated Substance:	Not regulated.
Class 2 Designated Substance:	Not regulated.
Ship Safety Law	Not regulated.
Civil Aeronautics law	Not regulated.
Japan Marine Pollution Prevention Law	
Bulk transport	Hazardous liquid substances (Z class)
Transport of goods	Not applicable to marine pollutants
High Pressure Gas Safety law	Not regulated.
Gun Powder Control Law	Not regulated.

GHS classification and labelling

Skin Irrit. 1: H317 May cause an allergic skin reaction. Resp. Sens. 1: H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

General Disclaimer

Date of issue 16/04/2018

Product identifier:	f the company/undertaking
Froduct Identifier.	
Product name:	Lysis Buffer
Product code:	LDT-01
SDS NO:	LDT01_JPE_1
Details of the supplier of the safety data	
Manufacturer/Supplier:	KURABO INDUSTRIES LTD.
Address:	Neyagawa Techno Center, 14-5 Shimokida-cho, Neyagawa, Osaka, 572-0823 JAPAN
Division:	Bio-Medical department
Telephone number:	+81-72-820-3079
FAX:	+81-72-820-3095
Relevant identified uses of the substan	
	:: Reagents for automated nucleic acid isolation system
Uses advised against: For research use	-
zards identification	
GHS classification and label elements of	the product
Classification of the substance or mixture	
HEALTH HAZARDS	Acute toxicity Oral: Category 4
	Skin corrosion/irritation: Category 2
	Serious eye damage/eye irritation: Category 2
(Note) GHS classification w	vithout description: Not applicable/Out of classification/Not classifiable
Label elements	
	^
	V
Signal word:	Warning
HAZARD STATEMENT	
H302 Harmful if swallowed	
H315 Causes skin irritation	
	uitatian
H319 Causes serious eye ir PRECAUTIONARY STATEM	
Prevention	
	arts thoroughly after handling.
P280 Wear protective glove	S.
P280 Wear eye protection/1	face protection.
P270 Do not eat, drink or sr	moke when using this product.
Response	
P302 + P352 IF ON SKIN: W	lash with plenty of soap and water.
P332 + P313 If skin irritatio	n occurs: Get medical advice/attention.
P362 + P364 Take off conta	aminated clothing and wash it before reuse.
P305 + P351 + P338 IF IN F	EYES: Rinse cautiously with water for several minutes. Remove
	nd easy to do. Continue rinsing.
P337 + P313 If eye irritation	n persists: Get medical advice/attention.
P330 Rinse mouth.	
	ED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301 + P312 IF SWALI OWF	
Disposal	container in accordance with local/national regulation
Disposal	container in accordance with local/national regulation.
Disposal	container in accordance with local/national regulation.
Disposal	container in accordance with local/national regulation.
Disposal	container in accordance with local/national regulation.
Disposal	container in accordance with local/national regulation.
Disposal	container in accordance with local/national regulation.

3. Composition/information on ingredients

Mixture/Substance selection

Mixture

Ingredient name	Content(%)	CAS No.
Guanidine hyrochloride	40-60	50-01-1
polyoxyethylene sorbitan fatty acid ester	10-20	-
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.
	Safe packaging materials	Use plastic container that have enough toughness.

8. Exposure controls/personal protection

Engineering measures

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

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

Hygiene measures

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 strong Serious eyedamage/eye irritation moderately 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.

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

Date of issue: 23/05/2018

Tissue Lysis Buffer MDT-01 MDT01_JPE_1 sheet KURABO INDUSTRIES LTD.
MDT01_JPE_1 sheet
sheet
KURABO INDUSTRIES LTD.
Neyagawa Techno Center, 14-5 Shimokida-cho, Neyagawa, Osaka, 572-0823 JAPAI
Bio-Medical department
+81-72-820-3079
+81-72-820-3095
ce or mixture and uses advised against
: Reagents for automated nucleic acid isolation system
only
the product
-

Safety Data Sheet

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

Toxic to aquatic life: Category 2

Skin corrosion/irritation: Category 2

Serious eye damage/eye irritation: Category 2A

May cause damage to organs (central nervous system): Category 2

Label elements

Signal word:



Signal word.

HEALTH HAZARDS

Warning

HAZARD STATEMENT

H315 Causes skin irritation.

H319 Causes serious eye irritation

H371 May cause damage to organs (central nervous system).

H401 Toxic to aquatic life

PRECAUTIONARY STATEMENT

Prevention

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P264 Wash hands thoroughly after handling.

 $\mathsf{P270}$ Do not eat, drink or smoke when using this product.

P273 Avoid release to the environment.

 ${\tt P280 Wear protective gloves/protective clothing/eye protection/face protection.}$

Response

P302 + P352 IF ON SKIN: Wa P312 Call a POISON CENTER or doctor/physician if you feel unwell.

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

P308 + P311 IF exposed or concerned: Call a POISON CENTER or doctor/physician

 $\label{eq:P332} P332 + P313 \ \text{If skin irritation occurs: Get medical advice/attention.}$

P337 + P313 If eye irritation persists: Get medical advice/attention.

P362 + P364 Take off contaminated clothing and wash it before reuse.

Storage

P405 Store locked up.

Disposal

 ${\sf P501\ Dispose\ of\ contents/container\ in\ accordance\ with\ local/national\ regulation.}$

3. Composition/information on ingredients

Mixture/Substance selection

Mixture

Ingredient name	Content(%)	CAS No.
disodium ethylenediamine tetraacetate	1 - 5	139-33-3
sodium lauryl sulfate	1 - 5	151-21-3
Water	Balance	7732-18-5

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

4. First-aid measures

resh air and keep comfortable for breathing.
iratory symptoms: Call a POISON CENTER or doctor/physician
soap and water.
urs: Get medical advice/attention.
h water for several minutes. Remove contact lenses,
to do. Continue rinsing.
ists: Get medical advice/attention.
t induce vomiting.
alcoholic drinks.
ous, never give anything by mouth.
TER or doctor/physician if you feel unwell.

May cause allergy, asthma, or breathing difficulty if inhaled.

Extinguishing media	
Suitable extinguishing media	Carbon dioxide, dry chemical and protein based foam.
Extinguishing media to avoid	None.
Special fire fighting	Keep personnel removed from and upwind of fire. Water runoff can damage
	the environment.
Procedures	Dike and collect water used to fight fire Evacuate area and fight fire from a safe
	distance.
Protection of fire-fighters	Wear adequate personal protective equipment.

6. Accidental release measures

Personnel	precautions, protective equ	ipment and emergency procedures
	Ventilate area after mat	erial pick up is complete.
	Wear an air-supplied resp	pirator for a poor/non ventilated spill.
	Refer to the protective	measures described in items 7 and 8.
Environme	ntal precautions	
	Prevent from entering int	to soil, waterways and ground water.
	Stop leak and spill after o	checking safety.
Methods a	nd materials for containme	nt and cleaning up
	Absorb with an inert abso	orbent (eg, sand, silica gel, acidic binder, universal binder, sawdust).
	Place in an appropriate c	ontainer, discard it, and leave it closed.
7. Handling and st	orage	
Precaution	is for safe handling	
Handling	Technicalmeasures	Avoid contact with skin, eyes and clothing. Wash hands after handling.
	Local and general	Use only with adequate ventilation.
	ventilation	
	Precautions	See Section 8 (Exposure Controls/Personal Protection).
	Safehandling advice	See Section 10 (Stability and reactivity).

8. Exposure controls/personal protection

Suitable storage conditions

Safe packaging materials

Engineering measures

Storage

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

Protect from sunlight. Keep container tightly closed.

Use plastic container that have enough toughness.

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. 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	
Hygiene measures		
	industrial hygiene and safety practice.	
Physical and Chemical Properties		
Information on basic physical and chemic	al properties	
Physical properties		
Appearance:	liquid	
Color:	colourless, clear	
Odor:	odourless	
Hq	8.4 Approx.	
Solubility		
Solubility in water:	Completely soluble	
. Stability and Reactivity		
Chemical stability	Stable under normal storage/handling conditions.	
Conditions to avoid	Freezing. Protect against direct sunlight.	
Incompatible materials	None	
Hazardous decomposition products	CO, CO2 Nitrogen oxides (NOx).	
. Toxicological Information		
Acute toxicity		
TestResults	Acute Oral LD50 Rat: > 2000 mg/kg	
Skin corrosion/irritation	strong	
Serious eyedamage/eye irritation	weakly irritant	
Carcinogenicity	Substances in group [1;2A;2B] by IARC (International Agency for Research on Cancer):None	
. Ecological Information		
Bioaccumulation	Not established.	
MA 1 101 1 10	Not established.	
Mobilityinsoil	Not established	

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.

nsport Information		
UN No, UN CLASS	Not applicable t	to UN NO.
Marine transportation is regulated by I	MDG Code. Air transpo	rtation is regulated by IATA Dangerous Goods Regulations.
IMDG	Not regulated a	s dangerous goods.
ΙΑΤΑ	Not regulated as dangerous goods.	
legulatory Information		
Law concerning the Examination and	Regulation of Manufac	ture etc. of Chemical Substances
Class 1 Specified Chemic	al Substance:	Not regulated.
Class 2 Specified Chemic	al Substance:	Not regulated.
Type 1 Monitoring Chemi	cal Substance:	Not regulated.
Type 2 Monitoring Chemi	cal Substance:	Not regulated.
Type 3 Monitoring Chemi	cal Substance:	Not regulated.
Industrial Safety and Health Law		
Dangerous Substances F	lammable:	Not regulated.
Dangerous Substances F	lammable Gases:	Not regulated.
Dangerous Substances C	xidizing:	Not regulated.

Not regulated.

Not regulated.

Dangerous Substances Explosives:

Dangerous Substances Ignitable:

	Harmful Substances Carcinogen:	Not regulated.
	Class 1 Designated Chemical Substances:	Not regulated.
		Not regulated.
	Class 2 Designated Chemical Substances: Class 3 Designated Chemical Substances:	Not regulated. Not regulated.
	0	0
	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	and Deleterious Substances Control Law	N
	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		
	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 PRT	R	
	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	autics law	Not regulated.
Japan Marii	ne Pollution Prevention Law	
	Bulk transport	Hazardous liquid substances (Z class)
	Transport of goods	Not applicable to marine pollutants
High Pressu	ure Gas Safety law	Not regulated.
Gun Powde	r Control Law	Not regulated.

GHS classification and labelling

Skin Irrit. 2: H315 Causes skin irritation.

Eye Irrit. 2: H319 Causes serious eye irritation

STOT SE 2: H371 May cause damage to organs (central nervous system).

Aquatic Acute 2: H401 Toxic to aquatic life

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

 $\label{eq:NITE_CHRIP} NITE\ CHRIP\ (http://www.safe.nite.go.jp/japan/sougou/view/SystemTop_jp.faces)$

General Disclaimer

Date of issue 17/04/2018

ntification of the substance/mixture and	of the company/underta	king		
Product identifier:				
Product name:	Wash Buffer			
Product code:	WDT-01			
SDS NO:	WDT01_JPE_1			
Details of the supplier of the safety da	ta sheet			
Manufacturer/Supplier:	KURABO INDUSTRI	ES LTD.		
Address:	Neyagawa Techno C	enter, 14–5 Shimokida	a-cho, Neyagawa, Osaka	, 572–0823 JAPA
Division:	Bio-Medical departm	ient		
Telephone number:	+81-72-820-3079			
FAX:	+81-72-820-3095			
Relevant identified uses of the substa		-		
Relevant identified uses of the produ	-	ted nucleic acid isola	tion system	
Uses advised against: For research u	se only			
zards identification				
GHS classification and label elements o	of the product			
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			
	Mixtur o			
	imixture			
Ingredie	nt name	Content(%)	CAS No.]
Ingredie sodium chloride		Content(%) 0.5 - 1.5	CAS No. 7647-14-5]
]
sodium chloride Water		0.5 - 1.5 Balance	7647-14-5	
sodium chloride Water Note : The figures shown	nt name	0.5 - 1.5 Balance ations of the product.	7647-14-5 7732-18-5	
sodium chloride Water Note : The figures shown Generally chemica	nt name above are not the specifica	0.5 - 1.5 Balance ations of the product.	7647-14-5 7732-18-5	
sodium chloride Water Note : The figures shown	nt name above are not the specifica Il substances greater than 1	0.5 - 1.5 Balance ations of the product. 1% of the total are liste	7647-14-5 7732-18-5	itable for situatic
sodium chloride Water Note : The figures shown Generally chemica st-aid measures	nt name above are not the specifica al substances greater than 1 Rescuers should we	0.5 - 1.5 Balance ations of the product. 1% of the total are liste ar proper personal p	7647-14-5 7732-18-5 d.	
sodium chloride Water Note : The figures shown Generally chemica st-aid measures Descriptions of first-aid measures	nt name above are not the specifica al substances greater than 1 Rescuers should we Remove person to f	0.5 - 1.5 Balance ations of the product. % of the total are liste ar proper personal p iresh air and keep co	d.	
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sodium chloride Water Note : The figures shown Generally chemica st-aid measures Descriptions of first-aid measures IF INHALED	nt name above are not the specifica al substances greater than 1 Rescuers should we Remove person to f Call a POISON CEN Remove contaminat	0.5 - 1.5 Balance ations of the product. 1% of the total are liste ar proper personal p rresh air and keep co TER or doctor/phys	7647-14-5 7732-18-5 d. mfortable for breathing ician if you feel unwell. ith plenty of soap and w	
sodium chloride Water Note : The figures shown Generally chemica st-aid measures Descriptions of first-aid measures IF INHALED	nt name above are not the specifica al substances greater than 1 Rescuers should we Remove person to f Call a POISON CEN Remove contaminat If skin irritation occi	0.5 - 1.5 Balance ations of the product. 1% of the total are liste ar proper personal p resh air and keep co TER or doctor/phys ed clothing. Wash w urs: Get medical advi	7647-14-5 7732-18-5 d. mfortable for breathing ician if you feel unwell. ith plenty of soap and w	vater.
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sodium chloride 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	nt name above are not the specifica al substances greater than the Rescuers should we Remove person to f Call a POISON CEN Remove contaminat If skin irritation occu Rinse cautiously wit if present and easy If eye irritation pers Rinse mouth.	0.5 - 1.5 Balance ations of the product. 1% of the total are liste ar proper personal p resh air and keep co ITER or doctor/phys ed clothing. Wash w urs: Get medical advi th water for several r to do. Continue rinsi ists: Get medical advi	7647-14-5 7732-18-5 d. motective equipment su mfortable for breathing ician if you feel unwell. ith plenty of soap and v ce/attention. ninutes. Remove containg.	vater.
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sodium chloride 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	nt name above are not the specifica al substances greater than the Rescuers should we Remove person to f Call a POISON CEN Remove contaminat If skin irritation occu Rinse cautiously wit if present and easy If eye irritation pers Rinse mouth.	0.5 - 1.5 Balance ations of the product. 1% of the total are liste ar proper personal p resh air and keep co ITER or doctor/phys ed clothing. Wash w urs: Get medical advi th water for several r to do. Continue rinsi ists: Get medical advi	7647-14-5 7732-18-5 d. rotective equipment su mfortable for breathing ician if you feel unwell. ith plenty of soap and w ce/attention. ninutes. Remove containg. rice/attention.	vater.
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sodium chloride 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 Suitable extinguishing media	nt name above are not the specificate al substances greater than the Rescuers should we Remove person to for Call a POISON CEN Remove contaminate If skin irritation occurs Rinse cautiously wite if present and easy If eye irritation pers Rinse mouth. Call a POISON CEN Carbon dioxide, dry None. Keep personnel rem	0.5 - 1.5 Balance ations of the product. 1% of the total are liste ar proper personal p iresh air and keep co ITER or doctor/phys ed clothing. Wash w urs: Get medical advi th water for several r to do. Continue rinsi ists: Get medical adv ITER or doctor/phys chemical and proteir	7647-14-5 7732-18-5 d. rotective equipment su mfortable for breathing ician if you feel unwell. ith plenty of soap and v ce/attention. ninutes. Remove containg. rice/attention.	vater. ct lenses,
sodium chloride 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 Suitable extinguishing media Extinguishing media to avoid Special fire fighting	nt name above are not the specificate al substances greater than the Rescuers should we Remove person to for Call a POISON CEN Remove contaminate If skin irritation occurs Rinse cautiously wite if present and easy If eye irritation pers Rinse mouth. Call a POISON CEN Carbon dioxide, dry None. Keep personnel reme the environment.	0.5 - 1.5 Balance 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 advi th water for several r to do. Continue rinsi ists: Get medical adv ITER or doctor/phys chemical and proteir	7647-14-5 7732-18-5 d. rotective equipment su mfortable for breathing ician if you feel unwell. ith plenty of soap and w ce/attention. ninutes. Remove contains. rice/attention. ician if you feel unwell. ician if you feel unwell.	ot 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

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	n on basic physical and chemi	cal properties
Physical pro	operties	
	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

•	vastewater treatment pla		ect entire waste and then charge to a licensed industrial waste
	fessional with manifests	for industrial waste. Fol	low the laws and regulations in your country while disposing of thi
product or waste.			
muoto.			
Transport Informatio	n		
UN	No, UN CLASS	Not applicable to L	JN NO.
Marine transport	ation is regulated by IMD		tion is regulated by IATA Dangerous Goods Regulations.
IM	DG	Not regulated as d	angerous goods.
IAI	A	Not regulated as d	angerous goods.
.			
Regulatory Informat		mulation of Manufacture	a ata af Chamical Substances
	ss 1 Specified Chemical		e etc. of Chemical Substances Not regulated.
	ss 1 Specified Chemical ss 2 Specified Chemical		Not regulated.
	be 1 Monitoring Chemica		Not regulated.
	be 2 Monitoring Chemica		Not regulated.
	be 3 Monitoring Chemica		-
Industrial Safety		i Gubstallet.	Not regulated.
•	and nearth Law ngerous Substances Flar	nmahle:	Not regulated.
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	ngerous Substances Plar		Not regulated.
	ngerous Substances Oxi Ingerous Substances Exp	-	Not regulated.
	ngerous Substances Exp ngerous Substances Igni		Not regulated.
	mful Substances Carcin		Not regulated.
	ss 1 Designated Chemic	-	Not regulated.
	ss 7 Designated Chemic ss 2 Designated Chemic		Not regulated.
	ss 2 Designated Chemic ss 3 Designated Chemic		Not regulated.
	ss 1 Organic Solvents P		Not regulated.
	ss 1 Organic Solvents P ss 2 Organic Solvents P		Not regulated.
	ss 2 Organic Solvents P ss 3 Organic Solvents P	-	
	tifiable Substance:	reparations.	Not regulated.
			Not regulated.
	oeling Requirements: ners:		Not regulated. Not regulated.
	eleterious Substances	Control Low	Not regulated.
	ecified Poisonous Substances		Not regulated
•	ecified Poisonous Substa		Not regulated. Not regulated.
•	sonous Substances – M		Not regulated.
	sonous Substances - Ca		Not regulated.
	eterious Substances – M		Not regulated.
	eterious Substances – (Not regulated.
	orcement Order Article		-
	Forcement Order Article		Not regulated
	Considered Poisonous:	UL U.	Not regulated. Not regulated.
	Considered Poisonous:		Not regulated.
	binet Order, Preparation		Not regulated.
Fire Service Lav	•	J.	not regulated.
	ss 1 Oxidizing Solids:		Not regulated.
	ss 2 Flammable Solids:		Not regulated.
	ss 2 Flammable Solids. ss 3 Spontaneous comb	ustibility and	Not regulated.
	ater-reactivity Substanc	•	Not regulated.
	ss 4 Flammable Liquids:		Not regulated.
	ss 4 Flammable Liquids: ss 5 Self-Reactive Subs	tances:	-
			Not regulated.
	ss 6 Oxidizing Liquids:	tanaaa	Not regulated.
	signated Flammable Subs		Not regulated.
	orage Reporting Substan	ce:	Not regulated.
Japan PRTR		l Culetana a	Materia de la terrat
-	ecific Class 1 Designated		Not regulated.
	ss 1 Designated Substar		Not regulated.
Cla	ss 2 Designated Substar	nce:	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.

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

Date of issue 09/05/2018

Product name:	Elution Buffer			
Product code:	CDT-01			
SDS NO:	CDT01_JPE_1			
Details of the supplier of the safety dat	ta sheet			
Manufacturer/Supplier:	KURABO INDUSTRIES LTD. Neyagawa Techno Center, 14-5 Shimokida-cho, Neyagawa, Osaka, 572-0823 JAPAN Bio-Medical department +81-72-820-3079			
Address:				
Division:				
Telephone number:				
FAX:	+81-72-820-3095			
Relevant identified uses of the substa	ance or mixture and us	es advised against		
Relevant identified uses of the produc	ict: Reagents for autom	ated nucleic acid isola	ation system	
Uses advised against: For research us	se only			
zards identification				
GHS classification and label elements of	of the product			
Classification of the substance or mixtur				
Not applicable to GHS classi				
Label elements				
No hazard pictogram				
No Signal word				
mposition/information on ingredients				
Mixture/Substance selection	Mixture			
				_
Ingredie	ont name	Content(%)	CAS No.]
Ingredie Water	nt name	Content(%) 80-100	CAS No. 7732-18-5	
Water	n t name above are not the specifi	80-100]
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Water Note : The figures shown Generally chemica st-aid measures Descriptions of first-aid measures	above are not the specifi al substances greater than Rescuers should w Remove person to Call a POISON CE Remove contamina	80-100 ications of the product. n 1% of the total are liste vear proper personal p o fresh air and keep co NTER or doctor/phys ated clothing. Wash w	7732-18-5 ed. protective equipment sui profortable for breathing. sician if you feel unwell. vith plenty of soap and w	
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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

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.

Precautions 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 pro	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 e	effects

Not established. Not established. Not established

	r own wastewater treatment plant is not available, colle ent professional with manifests for industrial waste. Fol	ect entire waste and then charge to a licensed industrial waste low the laws and regulations in your country while disposing of thi
ransport Inf	ormation	
	UN No, UN CLASS Not applicable to U	JN NO.
Marine tra		tion is regulated by IATA Dangerous Goods Regulations.
	IMDG Not regulated as d	
	IATA Not regulated as d	angerous goods.
egulatory In	formation	
	erning the Examination and Regulation of Manufactur	e etc. of Chemical Substances
	Class 1 Specified Chemical Substance:	Not regulated.
	Class 2 Specified Chemical Substance:	Not regulated.
	Type 1 Monitoring Chemical Substance:	Not regulated.
	Type 2 Monitoring Chemical Substance:	Not regulated.
	Type 3 Monitoring Chemical Substance:	Not regulated.
Industrial	Safety and Health Law	
	Dangerous Substances Flammable:	Not regulated.
	Dangerous Substances Flammable Gases:	Not regulated.
	Dangerous Substances Oxidizing:	Not regulated.
	Dangerous Substances Explosives:	Not regulated.
	Dangerous Substances Ignitable:	Not regulated.
	Harmful Substances Carcinogen:	Not regulated.
	Class 1 Designated Chemical Substances:	Not regulated.
	Class 2 Designated Chemical Substances:	Not regulated.
	Class 3 Designated Chemical Substances:	Not regulated.
	Class 1 Organic Solvents Preparations:	Not regulated.
	Class 2 Organic Solvents Preparations:	Not regulated.
	Class 3 Organic Solvents Preparations:	Not regulated.
	Notifiable Substance:	Not regulated.
		Not regulated.
	Labeling Requirements: Others:	-
Delever		Not regulated.
Poisonou	s and Deleterious Substances Control Law	Net or other d
	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 Servi	ice 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 PR		
	Specific Class 1 Designated Substance:	Not regulated.
	Class 1 Designated Substance:	Not regulated.
	Class 2 Designated Substance:	Not regulated.

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

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