

SAFETY DATA SHEET

According to JIS Z 7253:2019
Revision date 17-Oct-2024
 Revision Number 2.05

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	DNA ExtractorR TIS Kit
Product Code	296-67701

Supplier FUJIFILM Wako Pure Chemical Corporation
 1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan
 Phone: +81-6-6203-3741
 Fax: +81-6-6203-2029

Emergency telephone number +81-6-6203-3741 / +81-3-3270-8571

Recommended uses For research use only

Restrictions on use Seek expert judgment when using for purposes other than those recommended.

Section 2: HAZARDS IDENTIFICATION

GHS classification

Classification of the substance or mixture

Flammable liquids

Acute toxicity - Inhalation (Vapors)

Skin corrosion/irritation

Serious eye damage/eye irritation

Germ cell mutagenicity

Carcinogenicity

Reproductive Toxicity

Specific target organ toxicity (single exposure)

Category 1 liver, central nervous system, systemic toxicity

Category 3 Respiratory irritation, Narcotic effects

Specific target organ toxicity (repeated exposure)

Category 1 liver, blood system, central nervous system, ears

Category 2 kidneys

Category 3

Category 3

Category 1

Category 1

Category 2

Category 1B

Category 1B

Category 1, Category 3

Category 1, Category 2

Pictograms



Signal word

Danger

Hazard statements

H226 - Flammable liquid and vapour

H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage

H331 - Toxic if inhaled

H341 - Suspected of causing genetic defects

H350 - May cause cancer

H360 - May damage fertility or the unborn child

H335 - May cause respiratory irritation

H336 - May cause drowsiness or dizziness

H370 - Causes damage to the following organs: liver, central nervous system, systemic toxicity

H372 - Causes damage to the following organs through prolonged or repeated exposure: liver, blood system, central nervous system, ears

H373 - May cause damage to the following organs through prolonged or repeated exposure: kidneys

Precautionary statements-(Prevention)

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required
- Use only outdoors or in a well-ventilated area
- Do not breathe dust/fume/gas/mist/vapors/spray
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
- Keep container tightly closed
- Ground/bond container and receiving equipment
- Use explosion-proof electrical/ ventilating / lighting / equipment
- Use only non-sparking tools
- Take precautionary measures against static discharge
- Keep cool

Precautionary statements-(Response)

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
- Immediately call a POISON CENTER or doctor/physician
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- Wash contaminated clothing before reuse
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- Call a POISON CENTER or doctor/physician if you feel unwell
- IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
- In case of fire: Use suitable extinguishing media for extinction

Precautionary statements-(Storage)

- Store locked up
- Store in a well-ventilated place. Keep container tightly closed

Precautionary statements-(Disposal)

- Dispose of contents/container to an approved waste disposal plant

Others

Other hazards Not available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Single Substance or Mixture Kit (Set of mixtures)

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS RN
Lysis Solution	-	N/A	N/A	N/A	N/A-29-6771
Enzyme Reaction Solution	-	N/A	N/A	N/A	N/A-29-6772
RNase Solution	-	N/A	N/A	N/A	N/A-29-6773
Protein Digestion Solution	-	N/A	N/A	N/A	N/A-29-6774
Oxidation Inhibitor	-	N/A	N/A	N/A	N/A-29-6775
Sodium Iodide Solution	-	N/A	N/A	N/A	N/A-29-6776
Alcohol Solution	-	N/A	N/A	N/A	N/A-29-6777
PEG Solution	-	N/A	N/A	N/A	N/A-29-6778

Note on ISHL No.: * in the table means announced chemical substances.

Substances Remarks:

This Product includes the following componets. 2,2,6,6-tetramethylpiperidinoxy 10 - 20 %, N,N-Dimethyl Formamide 80 - 90 %, Sodium Iodide 55 - 65 %, Isopropyl Alcohol 35 - 45 %, 1-Butanol 55 - 65 %, Dodecyl sodium sulfate <1.0 %, Glycerol 60 - 70 %, Proteinase K <0.50 %, Sodium Chloride 5.0 - 15 %, Ethylenediaminetetraacetic acid <1.0 %

Section 4: FIRST AID MEASURES

Inhalation

Remove to fresh air. If symptoms persist, call a physician.

Skin contact

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

Eye contact

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

Ingestion

Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

Protection of first-aiders

Use personal protective equipment as required.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media

Carbon dioxide (CO₂), Foam, Extinguishing powder, Sand

Unsuitable extinguishing media

No information available

Specific hazards arising from the chemical product

Thermal decomposition can lead to release of irritating and toxic gases and vapors. Vapors may form explosive mixtures with air

Special extinguishing method

No information available

Special protective actions for fire-fighters

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

Environmental precautions

To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for contaminant and methods and materials for cleaning up

Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

Recovery, neutralization

No information available

Secondary disaster prevention measures

Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: HANDLING AND STORAGE

Handling

Technical measures

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use with local exhaust ventilation. Use with local exhaust ventilation.

Precautions

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and

scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

Safety handling precautions

Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapors). Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Storage**Safe storage conditions****Storage conditions**

Store away from sunlight in a cool (2-10 °C) well-ventilated dry place.

Safe packaging material

Glass, Polypropylene

Incompatible substances

Strong oxidizing agents

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering controls

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

Exposure limits

Chemical Name	JSOH (Japan)	ISHL (Japan)	ACGIH
N,N-Dimethylformamide 68-12-2	10ppm(30mg/m ³)Skin	ISHL/ACL: 10 ppm	TWA: 5 ppm Skin
Glycerol 56-81-5	N/A	N/A	TWA 10mg/m ³ (vapor)
Sodium iodide 7681-82-5	N/A	N/A	TWA: 0.01 mg/m ³ I inhalable particulate matter Skin
1-Butanol 71-36-3	50ppm(150mg/m ³)	ISHL/ACL: 25 ppm	TWA: 20 ppm
2-Propanol 67-63-0	400ppm(980 mg/m ³)	ISHL/ACL: 200 ppm	STEL: 400 ppm TWA: 200 ppm

Personal protective equipment**Respiratory protection**

gas mask for organic gas (JIS T 8152)

Hand protection

chemical protective gloves (JIS T 8116)

Eye protection

protective eyeglasses or chemical safety goggles (JIS T 8147)

Skin and body protection

Long-sleeved work clothes

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

If this product is classified as "Chemical Substances Hazardous to Skin, etc.", use appropriate protective equipment to them.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Form**Appearance**

Kit (Set of mixtures)

Odor

no data available

Melting point/freezing point

no data available

Boiling point, initial boiling point and boiling range

no data available

Flammability

Flammable liquid and vapor

Evaporation rate:

no data available

Flammability (solid, gas):

no data available

Upper/lower flammability or explosive limits**Upper:**

no data available

Lower:

no data available

Flash point

no data available

Auto-ignition temperature:

no data available

Decomposition temperature:	no data available
pH	no data available
Viscosity (coefficient of viscosity)	no data available
Dynamic viscosity	no data available
Solubilities	no data available
n-Octanol/water partition coefficient:(log Pow)	no data available
Vapour pressure	no data available
Specific Gravity / Relative density	no data available
Vapour density	no data available
Particle characteristics	no data available

Section 10: STABILITY AND REACTIVITY

Stability

Reactivity	no data available
Chemical stability	Stable under recommended storage conditions.
Hazardous reactions	None under normal processing
Conditions to avoid	Extremes of temperature and direct sunlight, Heat, flames and sparks, static electricity, spark
Incompatible materials	Strong oxidizing agents
Hazardous decomposition products	Carbon monoxide (CO), Carbon dioxide (CO ₂), Nitrogen oxides (NO _x), Sulfur oxides (SO _x), Halides

Section 11: TOXICOLOGICAL INFORMATION

*NITE: National Institute of Technology and Evaluation (JAPAN)
https://www.chem-info.nite.go.jp/en/chem/chrip/chrip_search/srhlInput

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
N,N-Dimethylformamide	3000 mg/kg (Rat)	3500 mg/kg (Rat)	4.7 mg/L (Mouse) 4 h
Glycerol	12600 mg/kg (Rat)	> 10 g/kg (Rabbit)	> 2.75 mg/L (Rat) 4 h
Sodium iodide	4340 mg/kg (Rat)	N/A	N/A
1-Butanol	2510 mg/kg (Rat) 2290 mg/kg (Rat)	3400 mg/kg (Rabbit) 3402 mg/kg (Rabbit)	> 8000 ppm (Rat) 4 h
2-Propanol	4384 mg/kg (Rat)	12870 mg/kg (Rabbit)	27908 ppmV (Rat) 4 h
Polyethylene Glycol	22 g/kg (Rat) 28 g/kg (Rat)	> 20 g/kg (Rabbit)	N/A
Ethylenediaminetetraacetic acid	> 2000 mg/kg (Rat)	N/A	N/A
Sodium Dodecyl Sulfate	1,200 mg/kg (Rat)	200 mg/kg (Rabbit)	> 3900 mg/m ³ (Rat) 1 h

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas- source information
N,N-Dimethylformamide	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1-Butanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Ethylenediaminetetraacetic acid	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Chemical Name	Acute toxicity -inhalation vapor- source information	Acute toxicity -inhalation dust- source information	Acute toxicity -inhalation mist- source information
N,N-Dimethylformamide	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1-Butanol	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS

	classification results.	classification results.	classification results.
2-Propanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Ethylenediaminetetraacetic acid	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Skin irritation/corrosion

Chemical Name	Skin corrosion/irritation source information
N,N-Dimethylformamide	Based on the NITE GHS classification results.
1-Butanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Ethylenediaminetetraacetic acid	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.

Serious eye damage/ irritation

Chemical Name	Serious eye damage/irritation source information
N,N-Dimethylformamide	Based on the NITE GHS classification results.
1-Butanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Ethylenediaminetetraacetic acid	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.

Respiratory or skin sensitization

Chemical Name	Respiratory or Skin sensitization source information
N,N-Dimethylformamide	Based on the NITE GHS classification results.
1-Butanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Ethylenediaminetetraacetic acid	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.

Reproductive cell mutagenicity

Chemical Name	germ cell mutagenicity source information
N,N-Dimethylformamide	Based on the NITE GHS classification results.
1-Butanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Ethylenediaminetetraacetic acid	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.

Carcinogenicity

Chemical Name	Carcinogenicity source information
N,N-Dimethylformamide	Based on the NITE GHS classification results.
1-Butanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Ethylenediaminetetraacetic acid	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH
N,N-Dimethylformamide 68-12-2	N/A	Group 2A	N/A	Group 2A
2-Propanol 67-63-0	N/A	Group 3	N/A	-

Reproductive toxicity

Chemical Name	Reproductive toxicity source information
N,N-Dimethylformamide	Based on the NITE GHS classification results.
1-Butanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Ethylenediaminetetraacetic acid	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.

STOT-single exposure

Chemical Name	STOT -single exposure- source information
N,N-Dimethylformamide	Based on the NITE GHS classification results.

1-Butanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Ethylenediaminetetraacetic acid	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.

STOT-repeated exposure

Chemical Name	STOT -repeated exposure- source information
N,N-Dimethylformamide	Based on the NITE GHS classification results.
1-Butanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Ethylenediaminetetraacetic acid	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.

Aspiration hazard

Chemical Name	Aspiration Hazard source information
N,N-Dimethylformamide	Based on the NITE GHS classification results.
1-Butanol	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.
Ethylenediaminetetraacetic acid	Based on the NITE GHS classification results.
Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.

Section 12: ECOLOGICAL INFORMATION

*NITE: National Institute of Technology and Evaluation (JAPAN)

https://www.chem-info.nite.go.jp/en/chem/chrip/chrip_search/srhInput

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
N,N-Dimethylformamide	EC50: <i>Desmodesmus subspicatus</i> 500 mg/L 96 h	LC50 : <i>Oryzias latipes</i> > 100 mg/L 96 h	EC50 : <i>Daphnia magna</i> 6,800 - 13,900 mg/L 48 h
Glycerol	N/A	LC50: <i>Oncorhynchus mykiss</i> 51 - 57 mL/L 96 h	EC50: <i>Daphnia magna</i> 500 mg/L 24 h
Sodium iodide	N/A	LC50 : rainbow trout 860 mg/L 96 h	N/A
1-Butanol	ErC50 : <i>Pseudokirchneriella subcapitata</i> > 1000 mg/L 72 h	LC50 : <i>Oryzias latipes</i> > 1000 mg/L 96 h	EC50 : <i>Daphnia magna</i> > 1000 mg/L 48 h
2-Propanol	ErC50 : <i>Pseudokirchneriella subcapitata</i> > 1000 mg/L 72 h	LC50 : Orange-red Killish > 100 mg/L 96 h	EC50 : <i>Daphnia magna</i> > 1000 mg/L 48 h
Polyethylene Glycol	N/A	LC50: <i>Carassius auratus</i> 5000 mg/L 24 h	N/A
Ethylenediaminetetraacetic acid	EC50: <i>Desmodesmus subspicatus</i> 1.01 mg/L 72 h	LC50: <i>Lepomis macrochirus</i> 34 - 62 mg/L 96 h LC50: <i>Pimephales promelas</i> 44.2 - 76.5 mg/L 96 h	EC50: <i>Daphnia magna</i> 113 mg/L 48 h
Sodium Dodecyl Sulfate	EC50: <i>Desmodesmus subspicatus</i> 53 mg/L 72 h	LC50: <i>Oncorhynchus mykiss</i> 4.3 - 8.5 mg/L 96 h	LC50 : <i>Acartia tonsa</i> 0.12 mg/L 96 h

Other data

Chemical Name	Short-term (acute) hazardous to the aquatic environment source information	Long-term (chronic) hazardous to the aquatic environment source information
N,N-Dimethylformamide	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1-Butanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
2-Propanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Ethylenediaminetetraacetic acid	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Sodium Dodecyl Sulfate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
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Persistence and degradability	No information available
Bioaccumulative potential	No information available
Mobility in soil	No information available
Hazard to the ozone layer	No information available

Section 13: DISPOSAL CONSIDERATIONS

Waste from residues

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Contaminated container and contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

Section 14: TRANSPORT INFORMATION

ADR/RID

UN number	UN2920
Proper shipping name:	Corrosive liquid, flammable, n.o.s. (2,2,6,6-tetramethylpiperidinoxy and N,N-Dimethylformamide Mixture)
UN classification	8
Subsidiary hazard class	3
Packing group	II
Marine pollutant	Not applicable

IMDG

UN number	UN2920
Proper shipping name:	Corrosive liquid, flammable, n.o.s. (2,2,6,6-tetramethylpiperidinoxy and N,N-Dimethylformamide Mixture)
UN classification	8
Subsidiary hazard class	3
Packing group	II
Marine pollutant (Sea)	Not applicable
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available

IATA

UN number	UN2920
Proper shipping name:	Corrosive liquid, flammable, n.o.s. (2,2,6,6-tetramethylpiperidinoxy and N,N-Dimethylformamide Mixture)
UN classification	8
Subsidiary hazard class	3
Packing group	II
Environmentally Hazardous Substance	Not applicable

Section 15: REGULATORY INFORMATION

Japanese regulations

Fire Service Act	Category IV, Class II petroleum, dangerous grade 3
Poisonous and Deleterious Substances Control Law	Not applicable
Industrial Safety and Health Act	Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57) Notifiable Substances (Law Art.57-2) Class 2 Organic Solvents (Enforcement Order Attached Table No.6-2, Ordinance on

Industrial Safety and Health Act (2025-) Regulations for the carriage and storage of dangerous goods in ship Civil Aeronautics Law Marine Pollution Prevention Law Pollutant Release and Transfer Register Law (2023.4.1-) Class 1 - No. Export Trade Control Order Air Pollution Control Law	Prevention of Organic Solvent Poisoning Art.1, Para.1, Item 5)
	Dangerous Substances - Flammable Substance (Enforcement Order Attached Table 1 Item 4)
	Working Environment Evaluation Standards, Administrative Control Levels (Law Art.65-2, Para.1)
	Substances with Health Hazards Prevention Guideline(Carcinogenicity Substance)
	Substances designated by the Minister of Health, Labor and Welfare as carcinogenic(Ordinance on Industrial Safety and Health Art.577, Para.2)
	Chemical Substances Hazardous to Skin, etc.(Regulations Article 594-2 Paragraph 1) 【2025.4.1~】 Notifiable Substances (Law Art.57-2)
	Corrosive Substances (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)
	Corrosive Substances (Ordinance Art.194, MITL Notification for Air Transportation of Explosives etc., Attached Table 1)
	Enforcement ordinance Appendix No. 1 Noxious liquid substance Category Y
	Enforcement ordinance Appendix No. 1 Noxious liquid substance Category Z
	Class 1
	Class 1 - No. 232
	Not applicable
	Hazardous Air Pollutants

Pollution Release and Transfer Registry (~2023.3.31)

Class	Chemical Name in Regulation	(Metal Name)	Control number	Content Rate
Class 1	N,N-Dimethylformamide		232	80 - 90

Industrial Safety and Health Law

Law Name	Chemical Name in Regulation	Weight %	
Notifiable Substances (Law Art.57-2)	N,N-Dimethylformamide	80 - 90	Existing Law
Notifiable Substances (Law Art.57-2)	Butanol	55 - 65	Existing Law
Notifiable Substances (Law Art.57-2)	Propyl alcohol	35 - 45	Existing Law
Notifiable Substances (Law Art.57-2)	Iodine and Iodine compounds	55 - 65	Existing Law
Notifiable Substances (Law Art.57-2)	Ethylenediaminetetraacetic acid	<1.0	2025/4/1

Section 16: OTHER INFORMATION

Key literature references and sources for data etc.

NITE: National Institute of Technology and Evaluation (JAPAN)
https://www.chem-info.nite.go.jp/en/chem/chrip/chrip_search/srhInput
 IATA dangerous Goods Regulations
 RTECS:Registry of Toxic Effects of Chemical Substances
 Japan Industrial Safety and Health Association GHS Model SDS
 Dictionary of Synthetic Organic Chemistry, SSOCJ, Koudansha Scientific Co.Ltd.
 Chemical Dictionary, Kyouritsu Publishing Co., Ltd.
 etc

Record of SDS revisions

The following contents were revised. Hazards identification. Composition/information on ingredients. Toxicological information. Ecological information. Transport information. Regulatory information.

Disclaimer

This SDS is according to JIS Z 7253: 2019. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GHS Classification is according to JIS Z 7252:2019. *JIS: Japanese Industrial Standards

End of Safety Data Sheet