SAFETY DATA SHEET

According to JIS Z 7253:2019
Revision date 17-May-2023
Revision Number 7.04

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	8 Offensive Odor Organic Solvents Mixture Standard Solution (each 1micro g/micro L Pentane Solution)
Product Code	153-01861

Manufacturer
FUJIFILM Wako Pure Chemical Corporation
1-2 Doshomachi 3-Chome
Chuo-ku, Osaka 540-8605, Japan
Phone: +81-6-6203-3741
Fax: +81-6-6203-5964

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	Category 2
Serious eye damage/eye irritation	Category 2B
Specific target organ toxicity (single exposure)	Category 3
Category 3 Respiratory irritation, Narcotic effects	
Aspiration hazard	Category 1
Acute aquatic toxicity	Category 2

Pictograms

Signal word Danger

Hazard statements
H225 - Highly flammable liquid and vapor
H320 - Causes eye irritation
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H304 - May be fatal if swallowed and enters airways
H401 - Toxic to aquatic life

Precautionary statements-(Prevention)
• Wash face, hands and any exposed skin thoroughly after handling
• Avoid breathing dust/fume/gas/mist/vapors/spray
• Use only outdoors or in a well-ventilated area

- Avoid release to the environment
- 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
- Wear protective gloves/protective clothing/eye protection/face protection
- 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
- If eye irritation persists: Get medical advice/attention
- IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
- 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: Immediately call a POISON CENTER or doctor/physician
- Do NOT induce vomiting
- In case of fire: Use CO2, dry chemical, or foam 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 Mixture

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS RN
Pentane	<100	72.15	(2)-5	*	109-66-0
Ethyl Acetate	0.1 w/v%	88.11	(2)-726	*	141-78-6
Isobutanol	0.1 w/v%	74.12	(2)-3049	*	78-83-1
o-Xylene	0.1 w/v%	106.17	(3)-3,(3)-60	4-(1)-39	95-47-6
Styrene	0.1 w/v%	104.15	(3)-4	*	100-42-5
p-Xylene	0.1 w/v%	106.17	(3)-3,(3)-60	4-(1)-39	106-42-3
4-Methyl-2-pentanone	0.1 w/v%	100.16	(2)-542	*	108-10-1
m-Xylene	0.1 w/v%	106.16	(3)-3,(3)-60	4-(1)-39	108-38-3
Toluene	0.1 w/v%	92.14	3-2,3-60	*	108-88-3

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

Impurities and/or Additives： Not applicable

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

Water spray (fog), 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 contaminent and methods and materials for cleaning up

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

Recoverly, 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

Highly flammable. Avoid contact with high temperature objects, spark, and strong oxidizing agents. To cut with care and wear protective gloves and protective goggles to ampoule time of the opening (Cutting method to check the label). 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	Ampoule
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
Pentane 109-66-0	TWA: 300 ppm OEL TWA: 880 mg/m³ OEL	N/A	TWA: 1000 ppm
Isobutanol 78-83-1	TWA: 50 ppm OEL TWA: 150 mg/m³ OEL ISHL/ACL: 50 ppm	ISHL/ACL: 50 ppm	TWA: 50 ppm
o-Xylene 95-47-6	50 ppm(217 mg/m³)	ISHL/ACL: 50 ppm	STEL: 150 ppm TWA: 100 ppm
Styrene 100-42-5	TWA: 20 ppm OEL TWA: 85 mg/m³ OEL Skin ISHL/ACL: 20 ppm	ISHL/ACL: 20 ppm	STEL: 40 ppm TWA: 20 ppm
p-Xylene 106-42-3	TWA: 50 ppm OEL TWA: 217 mg/m³ OEL ISHL/ACL: 50 ppm	ISHL/ACL: 50 ppm	STEL: 150 ppm TWA: 100 ppm
4-Methyl-2-pentanone 108-10-1	TWA: 50 ppm OEL TWA: 200 mg/m³ OEL ISHL/ACL: 20 ppm	ISHL/ACL: 20 ppm	STEL: 75 ppm TWA: 20 ppm
m-Xylene 108-38-3	TWA: 50 ppm OEL TWA: 217 mg/m³ OEL ISHL/ACL: 50 ppm	ISHL/ACL: 50 ppm	STEL: 150 ppm TWA: 100 ppm
Toluene 108-88-3	50ppm, 188 mg/m³ ; percutaneous absorption	ISHL/ACL: 20 ppm	TWA: 20 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
Skin and body protection Long-sleeved work clothes

General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Form

Color colorless
Turbidity clear
Appearance liquid
Odor characteristic odor
Melting point/freezing point -129 °C
Boiling point, initial boiling point and boiling range 36 °C
Flammability Highly flammable liquid and vapor
Evaporation rate: no data available
Flammability (solid, gas): no data available
Upper/lower flammability or explosive limits
Upper: 8.0 vol%
Lower: 1.4 vol%
Flash point -49 °C / -56 °F
Auto-ignition temperature: 260 °C / 500 °F
Decomposition temperature: no data available
pH no data available
Viscosity (coefficient of viscosity) no data available
Dynamic viscosity no data available

Solubilities	Ethanol : Miscible at any arbitrary ratio . water : insoluble .
n-Octanol/water partition coefficient:(log Pow)	3.45
Vapour pressure	68.3 kPa (25°C)
Specific Gravity / Relative density	0.625 -0.630 g/mL (20℃)
Vapour density	2.49
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 monooxide (CO), Carbon dioxide (CO2)

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Pentane	> 2000 mg/kg (Rat)	3000 mg/kg (Rabbit)	69765 ppm (Mouse) 4 h
Isobutanol	2460 mg/kg (Rat)	2460 mg/kg (Rabbit)	6336 ppm (Rat) 4 h
o-Xylene	3608 mg/kg (Rat)	14100 mg/kg (Rabbit)	4330 ppm (Rat) 6 h
Styrene	2650 mg/kg (Rat)	N/A	2,770 ppm (Rat) 4 h
p-Xylene	4029 mg/kg (Rat)	N/A	4550 ppm (Rat) 4 h 4740 ppm (Rat) 4 h
4-Methyl-2-pentanone	2080 mg/kg (Rat)	>3000 mg/kg (Rabbit)	1968 - 3936 ppm (Rat) 4 h
m-Xylene	5 g/kg (Rat)	12.18 g/kg (Rabbit) 14100 µL/kg (Rabbit)	5984 ppm (Rat) 6 h
Toluene	5000 mg/kg (Rat)	12000 mg/kg (Rat)	7460 ppm (Rat) 4 h (vapor)

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas- source information
Pentane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Isobutanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Styrene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
4-Methyl-2-pentanone	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Toluene	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
Pentane	Based on the NITE GHS Classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Isobutanol	Based on the NITE GHS	Based on the NITE GHS	Based on the NITE GHS

	classification results.	classification results.	classification results.
o-Xylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Styrene	Based on the NITE GHS Classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
4-Methyl-2-pentanone	Based on the NITE GHS Classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Toluene	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
Pentane	Based on the NITE GHS classification results.
Isobutanol	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.
Styrene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.
4-Methyl-2-pentanone	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.

Serious eye damage/ irritation

Chemical Name	Serious eye damage/irritation source information
Pentane	Based on the NITE GHS classification results.
Isobutanol	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.
Styrene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.
4-Methyl-2-pentanone	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.

Respiratory or skin sensitization

Chemical Name	Respiratory or Skin sensitization source information
Pentane	Based on the NITE GHS classification results.
Isobutanol	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.
Styrene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.
4-Methyl-2-pentanone	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.

Reproductive cell mutagenicity

Chemical Name	germ cell mutagencity source information
Pentane	Based on the NITE GHS classification results.
Isobutanol	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.
Styrene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.
4-Methyl-2-pentanone	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.

Carcinogenicity

Chemical Name	Carcinogenicity source information
Pentane	Based on the NITE GHS classification results.
Isobutanol	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.
Styrene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.

4-Methyl-2-pentanone	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
o-Xylene 95-47-6	-	Group 3	-	-
Styrene 100-42-5	R	2B	-	Group 2B
p-Xylene 106-42-3		Group 3		
4-Methyl-2-pentanone 108-10-1		Group 2B	A3	Group 2B
m-Xylene 108-38-3	-	Group 3	-	-
Toluene 108-88-3	-	Group 3	-	-

Reproductive toxicity

Chemical Name	Reproductive toxicity source information
Pentane	Based on the NITE GHS classification results.
Isobutanol	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.
Styrene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.
4-Methyl-2-pentanone	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.

STOT-single exposure

Chemical Name	STOT -single exposure- source information
Pentane	Based on the NITE GHS classification results.
Isobutanol	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.
Styrene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.
4-Methyl-2-pentanone	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.

STOT-repeated exposure

Chemical Name	STOT -repeated exposure- source information
Pentane	Based on the NITE GHS classification results.
Isobutanol	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.
Styrene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.
4-Methyl-2-pentanone	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.

Aspiration hazard

Chemical Name	Aspiration Hazard source information
Pentane	Based on the NITE GHS classification results.
Isobutanol	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.
Styrene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.
4-Methyl-2-pentanone	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Pentane	*N/A*	*N/A*	*EC50:Daphnia magna 2.7 mg/L 48 h*
Isobutanol	*EC50 : Desmodesmus subspicatus 2,300 mg/L 48 h*	*LC50 : Oncorhynchus mykiss 1,330 mg/L 96 h*	*LC50 : Procambarus acutus acutus 949 mg/L 96 h*
o-Xylene	*ErC50 : Scenedesmus sp. 0.799 mg/L 72 h*	*LC50 : Oncorhynchus mykiss 5.59 - 11.6 mg/L 96 h*	*EC50 : Daphnia magna 0.78 - 2.51 mg/L 48 h*
Styrene	*EC50:Pseudokirchneriella subcapitata 0.15 - 3.2 mg/L 96 h static EC50:Pseudokirchneriella subcapitata 0.46 - 4.3 mg/L 72 h static EC50:Pseudokirchneriella subcapitata 0.72 mg/L 96 h EC50:Pseudokirchneriella subcapitata 1.4 mg/L 72 h*	*LC50: Fathead minnow 4.02 mg/L 96 h*	*EC50:Daphnia magna 3.3 - 7.4 mg/L 48 h*
p-Xylene	*EC50:Chlorella vulgaris 105.1 mg/L 3 h EC50:Pseudokirchneriella subcapitata 3.2 mg/L 72 h static*	*LC50:Pimephales promelas 7.2 - 9.9 mg/L 96 h LC50:Oncorhynchus mykiss 2.6 mg/L 96 h LC50:Poecilia reticulata 8.8 mg/L 96 h*	*EC50:Daphnia magna 3.55 - 6.31 mg/L 48 h*
4-Methyl-2-pentanone	*EC50:Pseudokirchneriella subcapitata 400 mg/L 96 h*	*LC50 : Fathead minnow 505 mg/L 96 h*	*LC50:Artemia salina 1250 mg/L 24 h*
m-Xylene	*EC50:Pseudokirchneriella subcapitata 4.9 mg/L 72 h static*	*LC50:Pimephales promelas 14.3 - 18 mg/L 96 h LC50:Poecilia reticulata 12.9 mg/L 96 h LC50:Oncorhynchus mykiss 8.4 mg/L 96 h*	*EC50:Daphnia magna 2.81 - 5.0 mg/L 48 h*
Toluene	*EC50:Pseudokirchneriella subcapitata 433 mg/L 96 h*	*LC50:Pimephales promelas 15.22 - 19.05 mg/L 96 h*	*EC50:Ceriodaphnia dubia 3.78 mg/L 48 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
Pentane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Isobutanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Styrene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
4-Methyl-2-pentanone	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Persistence and degradability	Degree of decomposition：96 % by BOD (METI Existing chemical safety inspections)
Bioaccumulative potential	No information available
Mobility in soil	No information available
Hazard to the ozone layer	No information available
Mobility	

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	UN1265
Proper shipping name:	Pentanes
UN classfication	3
Subsidiary hazard class	
Packing group	I
Marine pollutant	Not applicable

IMDG

UN number	UN1265
Proper shipping name:	Pentanes
UN classfication	3
Subsidiary hazard class	
Packing group	I
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	UN1265
Proper shipping name:	Pentanes
UN classfication	3
Subsidiary hazard class	
Packing group	I
Environmentally Hazardous Substance	Not applicable

Section 15: REGULATORY INFORMATION

International Inventories

EINECS/ELINCS	-
TSCA	-

Japanese regulations

Fire Service Act	Category IV, special inflammable materials, dangerous grade 1
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, Para.1, Enforcement Order Art.18) Notifiable Substances (Law Art.57-2, Enforcement Oder Art.18-2 Attached Table

	No.9)No.136,323,407,477,543,569 Dangerous Substances - Flammable Substance (Enforcement Order Attached Table 1 Item 4)
Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc	Priority Assessment Chemical Substances (Law Article 2, Para.5)
Regulations for the carriage and storage of dangerous goods in ship	Flammable Liquids (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)
Civil Aeronautics Law	Flammable Liquids (Ordinance Art.194, MITL Nortification for Air Transportation of Explosives etc., Attached Table 1)
Marine Pollution Prevention Law	Enforcement ordinance Appendix No. 1 Noxious liquid substance Category Y Dangerous Substances
Pollutant Release and Transfer Register Law (2023.4.1-)	Not applicable
Export Trade Control Order	Not applicable
Offensive Odor Control Law	Specified Offensive Odor Substances

Chemical Name	Poisonous and Deleterious Substances Control Law	Industrial Safety and Health Act Substances (Law Art.57-2) (~2024.3.31)	Pollutant Release and Transfer Register Law (2023.4.1-)
Pentane 109-66-0 (<100)	-	Applicable	-
Isobutanol 78-83-1 (0.1 w/v%)	-	Applicable	-
o-Xylene 95-47-6 (0.1 w/v%)	-	Applicable	-
Styrene 100-42-5 (0.1 w/v%)	-	Applicable	-
p-Xylene 106-42-3 (0.1 w/v%)	-	Applicable	-
4-Methyl-2-pentanone 108-10-1 (0.1 w/v%)	-	Applicable	-
m-Xylene 108-38-3 (0.1 w/v%)	-	Applicable	-
Toluene 108-88-3 (0.1 w/v%)	-	Applicable	-

Section 16: OTHER INFORMATION

Key literature references and sources for data etc.

NITE: National Institute of Technology and Evaluation (JAPAN)
http://www.safe.nite.go.jp/japan/db.html
IATA dangerous Goods Regulations
RTECS:Registry of Toxic Effects of Chemical Substances
Japan Industrial Safety and Health Association GHS Model SDS
Dictionary of Synthetic Oraganic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd.
Chemical Dictionary, Kyouritsu Publishing Co., Ltd.
etc

Record of SDS revisions

The following contents were revised. Prodauct and company Identification. Exposure controls/personal protection. 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