SAFETY DATA SHEET

According to JIS Z 7253:2019
Revision date 29-Feb-2024
Revision Number 1.07

Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	25VOC Mixture Standard Solution (Methanol Solution)
Product Code	225-02351

Supplier
FUJIFILM Wako Pure Chemical Corporation
1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan
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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 2A
Carcinogenicity	Category 1A
Reproductive Toxicity	Category 1B
Specific target organ toxicity (single exposure)	Category 1, Category 3
Category 1 central nervous system, Visual organ, systemic toxicity	
Category 3 Respiratory irritation, Narcotic effects	
Specific target organ toxicity (repeated exposure)	Category 1
Category 1 central nervous system, Visual organ	
Acute aquatic toxicity	Category 3
Chronic aquatic toxicity	Category 3
Ozone	Category 1

Pictograms

Signal word Danger

Hazard statements

H225 - Highly flammable liquid and vapor
H319 - Causes serious eye irritation
H350 - May cause cancer
H360 - May damage fertility or the unborn child
H335 - May cause respiratory irritation
H336 - May cause drowsiness or dizziness
H412 - Harmful to aquatic life with long lasting effects
H420 - Harms public health and the environment by destroying ozone in the upper atmosphere
H402 - Harmful to aquatic life
H370 - Causes damage to the following organs: central nervous system, Visual organ, systemic toxicity
H372 - Causes damage to the following organs through prolonged or repeated exposure: central nervous system, Visual

organ

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
- 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
- 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
- Keep cool

Precautionary statements-(Response)

- IF exposed: Call a POISON CENTER or doctor/physician
- 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
- In case of fire: Use suitable extinguishing media for extinction

Precautionary statements-(Storage)

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

Precautionary statements-(Disposal)

- Dispose of contents/container to an approved waste disposal plant
- Refer to manufacturer/supplier for information on recovery/recycling

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
Methanol	97.5	32.04	(2)-201	*	67-56-1
Chloroform	0.1	119.38	(2)-37	*	67-66-3
Benzene	0.1	78.11	(3)-1	*	71-43-2
1,1,1-Trichloroethane	0.1	133.40	(2)-55	*	71-55-6
Dichloromethane	0.1	84.93	(2)-36	*	75-09-2
Bromoform	0.1	252.73	(2)-40	*	75-25-2
Bromodichloromethane	0.1	163.83	N/A	N/A	75-27-4
1,1-Dichloroethylene	0.1	96.94	(2)-103	*	75-35-4
1,2-Dichloropropane	0.1	112.99	(2)-81	*	78-87-5
1,1,2-Trichloroethane	0.1	133.40	(2)-55	*	79-00-5
Trichloroethylene	0.1	131.39	(2)-105	*	79-01-6
o-Xylene	0.1	106.17	(3)-3,(3)-60	4-(1)-39	95-47-6
cis-1,3-Dichloropropene	0.1	110.97	(2)-125	2-(13)-29	10061-01-5
trans-1,3-Dichloropropene	0.1	110.97	(2)-125	2-(13)-29	10061-02-6
p-Xylene	0.1	106.17	(3)-3,(3)-60	4-(1)-39	106-42-3
p-Dichlorobenzene	0.1	147.00	(3)-41	*	106-46-7

1,2-Dichloroethane	0.1	98.96	(2)-54	2-(13)-23	107-06-2
m-Xylene	0.1	106.17	(3)-3,(3)-60	4-(1)-39	108-38-3
Toluene	0.1	92.14	(3)-2,(3)-60	*	108-88-3
1,4-Dioxane	0.1	88.11	(5)-839	*	123-91-1
Chlorodibromomethane	0.1	208.27	N/A	N/A	124-48-1
Tetrachloroethylene	0.1	165.83	(2)-114	*	127-18-4
cis-1,2-Dichloroethylene	0.1	96.94	(2)-103	*	156-59-2
trans-1,2-Dichloroethylene	0.1	96.94	(2)-103	*	156-60-5
tert-Butyl methyl ether	0.1	88.15	(2)-3220	2-(2)-133 2-(12)-134	1634-04-4
Carbon Tetrachloride	0.1	153.82	(2)-38	2-(13)-47	56-23-5

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

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 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 Keep container protect from light tightly closed. Store in a cool (2-10 °C) place. Packed with an inert gas. Store locked up.

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
Methanol 67-56-1	TWA: 200 ppm OEL TWA: 260 mg/m³ OEL Skin ISHL/ACL: 200 ppm	200ppm	TWA 200ppm(260mg/m³) STEL 250ppm
Chloroform 67-66-3	TWA: 3 ppm OEL TWA: 14.7 mg/m³ OEL Skin ISHL/ACL: 3 ppm	ISHL/ACL: 3 ppm	TWA: 10 ppm
Benzene 71-43-2	Skin ISHL/ACL: 1 ppm	ISHL/ACL: 1 ppm	STEL: 2.5 ppm TWA: 0.5 ppm Skin
1,1,1-Trichloroethane 71-55-6	TWA: 200 ppm OEL TWA: 1090 mg/m³ OEL ISHL/ACL: 200 ppm	ISHL/ACL: 200 ppm	STEL: 450 ppm TWA: 350 ppm
Dichloromethane 75-09-2	Ceiling: 100 ppm Ceiling: 347 mg/m³ TWA: 173 mg/m³ OEL Skin ISHL/ACL: 50 ppm	ISHL/ACL: 50 ppm	TWA: 50 ppm
Bromoform 75-25-2	TWA: 1 ppm OEL TWA: 10.3 mg/m³ OEL	N/A	TWA: 0.5 ppm
1,1-Dichloroethylene	N/A	N/A	TWA: 5 ppm

75-35-4			
1,2-Dichloropropane 78-87-5	TWA: 1 ppm OEL TWA: 4.6 mg/m³ OEL ISHL/ACL: 1 ppm	ISHL/ACL: 1 ppm	TWA: 10 ppm
1,1,2-Trichloroethane 79-00-5	TWA: 10 ppm OEL TWA: 55 mg/m³ OEL Skin	N/A	TWA: 10 ppm Skin
Trichloroethylene 79-01-6	TWA: 25 ppm OEL TWA: 135 mg/m³ OEL ISHL/ACL: 10 ppm	ISHL/ACL: 10 ppm	STEL: 25 ppm TWA: 10 ppm
o-Xylene 95-47-6	TWA: 50 ppm OEL TWA: 217 mg/m³ OEL ISHL/ACL: 50 ppm	ISHL/ACL: 50 ppm	TWA: 20 ppm
trans-1,3-Dichloropropene 10061-02-6	N/A	N/A	TWA 1ppm(skin) 4.5mg/m³
p-Xylene 106-42-3	TWA: 50 ppm OEL TWA: 217 mg/m³ OEL ISHL/ACL: 50 ppm	ISHL/ACL: 50 ppm	TWA: 20 ppm
p-Dichlorobenzene 106-46-7	TWA: 10 ppm OEL TWA: 60 mg/m³ OEL	N/A	TWA: 10 ppm
1,2-Dichloroethane 107-06-2	TWA: 10 ppm OEL TWA: 40 mg/m³ OEL ISHL/ACL: 10 ppm	ISHL/ACL: 10 ppm	TWA: 10 ppm
m-Xylene 108-38-3	TWA: 50 ppm OEL TWA: 217 mg/m³ OEL ISHL/ACL: 50 ppm	ISHL/ACL: 50 ppm	TWA: 20 ppm
Toluene 108-88-3	TWA: 50 ppm OEL TWA: 188 mg/m³ OEL Skin ISHL/ACL: 20 ppm	ISHL/ACL: 20 ppm	TWA: 20 ppm
1,4-Dioxane 123-91-1	TWA: 1 ppm OEL TWA: 3.6 mg/m³ OEL Skin ISHL/ACL: 10 ppm	ISHL/ACL: 10 ppm	TWA: 20 ppm Skin
Tetrachloroethylene 127-18-4	TWA: OEL Skin ISHL/ACL: 25 ppm	ISHL/ACL: 25 ppm	STEL: 100 ppm TWA: 25 ppm
cis-1,2-Dichloroethylene 156-59-2	ISHL/ACL: 150 ppm	ISHL/ACL: 150 ppm	TWA: 200 ppm
trans-1,2-Dichloroethylene 156-60-5	ISHL/ACL: 150 ppm	ISHL/ACL: 150 ppm	TWA: 200 ppm
tert-Butyl methyl ether 1634-04-4	N/A	N/A	TWA: 50 ppm
Carbon Tetrachloride 56-23-5	TWA: 5 ppm OEL TWA: 31 mg/m³ OEL Skin ISHL/ACL: 5 ppm	ISHL/ACL: 5 ppm	STEL: 10 ppm TWA: 5 ppm Skin

Chemical Name	Concentration standard value set by the Minister of Health, Labor and Welfare (8hr)	Concentration standard value set by the Minister of Health, Labor and Welfare (Short-Term)
1,1-Dichloroethylene 75-35-4	5 ppm	N/A
cis-1,3-Dichloropropene 10061-01-5	1 ppm	N/A
trans-1,3-Dichloropropene 10061-02-6	1 ppm	N/A
p-Dichlorobenzene 106-46-7	10 ppm	N/A

Chemical Name	Concentration standard value set by the Minister of Health, Labor and Welfare (8hr)	Concentration standard value set by the Minister of Health, Labor and Welfare (Short-Term)
tert-Butyl methyl ether 1634-04-4	50 ppm	N/A

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

Since data of the mixture is not available, data as methanol is described.

Form

Color colorless
Turbidity clear
Appearance liquid
Odor characteristic odor
Melting point/freezing point no data available
Boiling point, initial boiling point and boiling range 65 °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: 36.5%
Lower: 6%
Flash point 11 °C / 52 °F
Auto-ignition temperature: 464 °C / 867 °F
Decomposition temperature: no data available
pH no data available
Viscosity (coefficient of viscosity) no data available
Dynamic viscosity no data available
Solubilities water or organic solvents : miscible .
n-Octanol/water partition coefficient:(log Pow) no data available
Vapour pressure no data available
Specific Gravity / Relative density 0.79
Vapour density no data available
Particle characteristics no data available

Section 10: STABILITY AND REACTIVITY

Stability

Reactivity no data available
Chemical stability May be altered by light.

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), Halides

Section 11: TOXICOLOGICAL INFORMATION

Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Methanol	1400 mg/kg (Human)	15800 mg/kg (Rabbit)	>31500 ppm (Rat) 4 h (vapor)
Chloroform	908 mg/kg (Rat)	> 3980 mg/kg (Rabbit)	11.3 g/m³ (Rat) 4 h
Benzene	3,400 - 5,600 mg/kg (Rat)	>8,200 mg/kg (Rabbit)	13,700 ppm (Rat)
1,1,1-Trichloroethane	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat)	15588 ppm (Rat) 4 h
Dichloromethane	2120 mg/kg (Rat Male)	N/A	18,371 ppm (Rat) 4 h
Bromoform	933 mg/kg (Rat)	N/A	N/A
Bromodichloromethane	430 mg/kg (Rat)	N/A	N/A
1,1-Dichloroethylene	1500 mg/kg (Rat)	N/A	6350 ppm (Rat) 4 h
1,2-Dichloropropane	1,900 mg/kg (Rat)	10,115 mg/kg (Rabbit)	14 mg/L (Rat) 10 h
1,1,2-Trichloroethane	837 mg/kg (Rat)	5,380 mg/kg (Rabbit)	2000 ppm (Rat) 4 h
Trichloroethylene	4920 mg/kg (Rat) 4290 mg/kg (Rat)	> 20 g/kg (Rabbit) 29000 mg/kg (Rabbit)	26 mg/L (Rat) 4 h
o-Xylene	3600 mg/kg (Rat)	> 3160 mg/kg (Rabbit)	4330 ppm (Rat) 6 h
trans-1,3-Dichloropropene	470mg/kg(Rat)	775mg/kg(Rat)	1000ppm/2h(Rat)
p-Xylene	4029 mg/kg (Rat)	N/A	4550 ppm (Rat) 4 h 4740 ppm (Rat) 4 h
p-Dichlorobenzene	>2000 mg/kg (Rat)	>2000 mg/kg (Rat)	>5.07 mg/L (Rat) 4 h
1,2-Dichloroethane	670 mg/kg (Rat)	2800 mg/kg (Rabbit)	1000 ppm (Rat) 4 h
m-Xylene	4320 - 6700 mg/kg (Rat)	3228 - 14100 mg/kg (Rabbit)	5984 ppm (Rat) 6 h
Toluene	5000 mg/kg (Rat)	12000 mg/kg (Rat)	7460 ppm (Rat) 4 h (vapor)
1,4-Dioxane	5170 mg/kg (Rat)	2100 mg/kg (Rat)	9158 ppm (Rat) 4 h
Chlorodibromomethane	370 mg/kg (Rat)	N/A	N/A
Tetrachloroethylene	2629 mg/kg (Rat)	N/A	27.8 mg/L (Rat) 4 h
cis-1,2-Dichloroethylene	N/A	N/A	13,700 ppm (Rat) 4 h
trans-1,2-Dichloroethylene	1,235 mg/kg (Rat)	> 5,000 mg/kg (Rabbit)	24,041 ppm (Rat) 4 h
tert-Butyl methyl ether	> 2000 mg/kg (Rat)	> 2000 mg/kg (Rat) > 7400 mg/kg (Rabbit)	23576 ppm (Rat) 4 h
Carbon Tetrachloride	2350 mg/kg (Rat)	15000 mg/kg (Rabbit) 5070 mg/kg (Rat)	8000 ppm (Rat) 4 h

Chemical Name	Acute toxicity -oral- source information	Acute toxicity -dermal- source information	Acute toxicity -inhalation gas- source information
Methanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1,1,1-Trichloroethane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Dichloromethane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Bromoform	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Bromodichloromethane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1,1-Dichloroethylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1,2-Dichloropropane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1,1,2-Trichloroethane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Trichloroethylene	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.
p-Xylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
p-Dichlorobenzene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1,2-Dichloroethane	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.
1,4-Dioxane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Chlorodibromomethane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Tetrachloroethylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
cis-1,2-Dichloroethylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
trans-1,2-Dichloroethylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
tert-Butyl methyl ether	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Carbon Tetrachloride	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
Methanol	Based on the NITE GHS Classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS Classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1,1,1-Trichloroethane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Dichloromethane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Bromoform	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Bromodichloromethane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1,1-Dichloroethylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1,2-Dichloropropane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1,1,2-Trichloroethane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Trichloroethylene	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.
p-Xylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
p-Dichlorobenzene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1,2-Dichloroethane	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.
1,4-Dioxane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Chlorodibromomethane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Tetrachloroethylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
cis-1,2-Dichloroethylene	Based on the NITE GHS Classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
trans-1,2-Dichloroethylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
tert-Butyl methyl ether	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Carbon Tetrachloride	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
Methanol	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.
1,1,1-Trichloroethane	Based on the NITE GHS classification results.
Dichloromethane	Based on the NITE GHS classification results.
Bromoform	Based on the NITE GHS classification results.
Bromodichloromethane	Based on the NITE GHS classification results.
1,1-Dichloroethylene	Based on the NITE GHS classification results.
1,2-Dichloropropane	Based on the NITE GHS classification results.
1,1,2-Trichloroethane	Based on the NITE GHS classification results.
Trichloroethylene	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.
trans-1,3-Dichloropropene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.
p-Dichlorobenzene	Based on the NITE GHS classification results.
1,2-Dichloroethane	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.
1,4-Dioxane	Based on the NITE GHS classification results.
Chlorodibromomethane	Based on the NITE GHS classification results.
Tetrachloroethylene	Based on the NITE GHS classification results.
cis-1,2-Dichloroethylene	Based on the NITE GHS classification results.
trans-1,2-Dichloroethylene	Based on the NITE GHS classification results.
tert-Butyl methyl ether	Based on the NITE GHS classification results.
Carbon Tetrachloride	Based on the NITE GHS classification results.

Serious eye damage/ irritation

Chemical Name	Serious eye damage/irritation source information
Methanol	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.
1,1,1-Trichloroethane	Based on the NITE GHS classification results.
Dichloromethane	Based on the NITE GHS classification results.
Bromoform	Based on the NITE GHS classification results.
Bromodichloromethane	Based on the NITE GHS classification results.
1,1-Dichloroethylene	Based on the NITE GHS classification results.
1,2-Dichloropropane	Based on the NITE GHS classification results.
1,1,2-Trichloroethane	Based on the NITE GHS classification results.
Trichloroethylene	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.
trans-1,3-Dichloropropene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.
p-Dichlorobenzene	Based on the NITE GHS classification results.
1,2-Dichloroethane	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.

1,4-Dioxane	Based on the NITE GHS classification results.
Chlorodibromomethane	Based on the NITE GHS classification results.
Tetrachloroethylene	Based on the NITE GHS classification results.
cis-1,2-Dichloroethylene	Based on the NITE GHS classification results.
trans-1,2-Dichloroethylene	Based on the NITE GHS classification results.
tert-Butyl methyl ether	Based on the NITE GHS classification results.
Carbon Tetrachloride	Based on the NITE GHS classification results.

Respiratory or skin sensitization

Chemical Name	Respiratory or Skin sensitization source information
Methanol	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.
1,1,1-Trichloroethane	Based on the NITE GHS classification results.
Dichloromethane	Based on the NITE GHS classification results.
Bromoform	Based on the NITE GHS classification results.
Bromodichloromethane	Based on the NITE GHS classification results.
1,1-Dichloroethylene	Based on the NITE GHS classification results.
1,2-Dichloropropane	Based on the NITE GHS classification results.
1,1,2-Trichloroethane	Based on the NITE GHS classification results.
Trichloroethylene	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.
trans-1,3-Dichloropropene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.
p-Dichlorobenzene	Based on the NITE GHS classification results.
1,2-Dichloroethane	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.
1,4-Dioxane	Based on the NITE GHS classification results.
Chlorodibromomethane	Based on the NITE GHS classification results.
Tetrachloroethylene	Based on the NITE GHS classification results.
cis-1,2-Dichloroethylene	Based on the NITE GHS classification results.
trans-1,2-Dichloroethylene	Based on the NITE GHS classification results.
tert-Butyl methyl ether	Based on the NITE GHS classification results.
Carbon Tetrachloride	Based on the NITE GHS classification results.

Reproductive cell mutagenicity

Chemical Name	germ cell mutagencity source information
Methanol	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.
1,1,1-Trichloroethane	Based on the NITE GHS classification results.
Dichloromethane	Based on the NITE GHS classification results.
Bromoform	Based on the NITE GHS classification results.
Bromodichloromethane	Based on the NITE GHS classification results.
1,1-Dichloroethylene	Based on the NITE GHS classification results.
1,2-Dichloropropane	Based on the NITE GHS classification results.
1,1,2-Trichloroethane	Based on the NITE GHS classification results.
Trichloroethylene	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.
p-Dichlorobenzene	Based on the NITE GHS classification results.
1,2-Dichloroethane	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.
1,4-Dioxane	Based on the NITE GHS classification results.
Chlorodibromomethane	Based on the NITE GHS classification results.
Tetrachloroethylene	Based on the NITE GHS classification results.
cis-1,2-Dichloroethylene	Based on the NITE GHS classification results.
trans-1,2-Dichloroethylene	Based on the NITE GHS classification results.

tert-Butyl methyl ether	Based on the NITE GHS classification results.
Carbon Tetrachloride	Based on the NITE GHS classification results.

Carcinogenicity

Chemical Name	Carcinogenicity source information
Methanol	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.
1,1,1-Trichloroethane	Based on the NITE GHS classification results.
Dichloromethane	Based on the NITE GHS classification results.
Bromoform	Based on the NITE GHS classification results.
Bromodichloromethane	Based on the NITE GHS classification results.
1,1-Dichloroethylene	Based on the NITE GHS classification results.
1,2-Dichloropropane	Based on the NITE GHS classification results.
1,1,2-Trichloroethane	Based on the NITE GHS classification results.
Trichloroethylene	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.
p-Dichlorobenzene	Based on the NITE GHS classification results.
1,2-Dichloroethane	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.
1,4-Dioxane	Based on the NITE GHS classification results.
Chlorodibromomethane	Based on the NITE GHS classification results.
Tetrachloroethylene	Based on the NITE GHS classification results.
cis-1,2-Dichloroethylene	Based on the NITE GHS classification results.
trans-1,2-Dichloroethylene	Based on the NITE GHS classification results.
tert-Butyl methyl ether	Based on the NITE GHS classification results.
Carbon Tetrachloride	Based on the NITE GHS classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
Chloroform 67-66-3	Reasonably Anticipated	Group 2B	A3	Group 2B
Benzene 71-43-2	Known	Group 1	A1	Group 1
1,1,1-Trichloroethane 71-55-6		Group 2A		
Dichloromethane 75-09-2	Reasonably Anticipated	Group 2A	A3	Group 2A
Bromoform 75-25-2		Group 3	A3	
Bromodichloromethane 75-27-4	Reasonably Anticipated	Group 2B		Group 2B
1,1-Dichloroethylene 75-35-4		Group 2B		Group 2B
1,2-Dichloropropane 78-87-5		Group 1		Group 1
1,1,2-Trichloroethane 79-00-5	-	Group 3	A3	-
Trichloroethylene 79-01-6	Known Reasonably Anticipated	Group 1	A2	Group 1
o-Xylene 95-47-6	-	Group 3		-
trans-1,3-Dichloropropene 10061-02-6	R (ヒトに対して発がん性がある)	グループ2B (ヒトに対して発がん性がある可能性がある)	A3 (動物発がん性物質)	「第２群B」人間に対しておそらく発がん性があると考えられる物質 (証拠が比較的十分でない物質)

p-Xylene 106-42-3		Group 3		
p-Dichlorobenzene 106-46-7	Reasonably Anticipated	Group 2B	A3	Group 2B
1,2-Dichloroethane 107-06-2	Reasonably Anticipated	Group 2B		Group 2B
m-Xylene 108-38-3	-	Group 3		-
Toluene 108-88-3	-	Group 3		-
1,4-Dioxane 123-91-1	Reasonably Anticipated	Group 2B	A3	Group 2B
Chlorodibromomethane 124-48-1	-	Group 3		-
Tetrachloroethylene 127-18-4	Reasonably Anticipated	Group 2A	A3	Group 2B
tert-Butyl methyl ether 1634-04-4	-	Group 3	A3	-
Carbon Tetrachloride 56-23-5	Reasonably Anticipated	Group 2B	A2	Group 2B

Reproductive toxicity

Chemical Name	Reproductive toxicity source information
Methanol	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.
1,1,1-Trichloroethane	Based on the NITE GHS classification results.
Dichloromethane	Based on the NITE GHS classification results.
Bromoform	Based on the NITE GHS classification results.
Bromodichloromethane	Based on the NITE GHS classification results.
1,1-Dichloroethylene	Based on the NITE GHS classification results.
1,2-Dichloropropane	Based on the NITE GHS classification results.
1,1,2-Trichloroethane	Based on the NITE GHS classification results.
Trichloroethylene	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.
p-Dichlorobenzene	Based on the NITE GHS classification results.
1,2-Dichloroethane	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.
1,4-Dioxane	Based on the NITE GHS classification results.
Chlorodibromomethane	Based on the NITE GHS classification results.
Tetrachloroethylene	Based on the NITE GHS classification results.
cis-1,2-Dichloroethylene	Based on the NITE GHS classification results.
trans-1,2-Dichloroethylene	Based on the NITE GHS classification results.
tert-Butyl methyl ether	Based on the NITE GHS classification results.
Carbon Tetrachloride	Based on the NITE GHS classification results.

STOT-single exposure

Chemical Name	STOT -single exposure- source information
Methanol	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.
1,1,1-Trichloroethane	Based on the NITE GHS classification results.
Dichloromethane	Based on the NITE GHS classification results.
Bromoform	Based on the NITE GHS classification results.
Bromodichloromethane	Based on the NITE GHS classification results.
1,1-Dichloroethylene	Based on the NITE GHS classification results.
1,2-Dichloropropane	Based on the NITE GHS classification results.
1,1,2-Trichloroethane	Based on the NITE GHS classification results.
Trichloroethylene	Based on the NITE GHS classification results.

o-Xylene	Based on the NITE GHS classification results.
trans-1,3-Dichloropropene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.
p-Dichlorobenzene	Based on the NITE GHS classification results.
1,2-Dichloroethane	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.
1,4-Dioxane	Based on the NITE GHS classification results.
Chlorodibromomethane	Based on the NITE GHS classification results.
Tetrachloroethylene	Based on the NITE GHS classification results.
cis-1,2-Dichloroethylene	Based on the NITE GHS classification results.
trans-1,2-Dichloroethylene	Based on the NITE GHS classification results.
tert-Butyl methyl ether	Based on the NITE GHS classification results.
Carbon Tetrachloride	Based on the NITE GHS classification results.

STOT-repeated exposure

Chemical Name	STOT -repeated exposure- source information
Methanol	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.
1,1,1-Trichloroethane	Based on the NITE GHS classification results.
Dichloromethane	Based on the NITE GHS classification results.
Bromoform	Based on the NITE GHS classification results.
Bromodichloromethane	Based on the NITE GHS classification results.
1,1-Dichloroethylene	Based on the NITE GHS classification results.
1,2-Dichloropropane	Based on the NITE GHS classification results.
1,1,2-Trichloroethane	Based on the NITE GHS classification results.
Trichloroethylene	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.
trans-1,3-Dichloropropene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.
p-Dichlorobenzene	Based on the NITE GHS classification results.
1,2-Dichloroethane	Based on the NITE GHS classification results.
m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.
1,4-Dioxane	Based on the NITE GHS classification results.
Chlorodibromomethane	Based on the NITE GHS classification results.
Tetrachloroethylene	Based on the NITE GHS classification results.
cis-1,2-Dichloroethylene	Based on the NITE GHS classification results.
trans-1,2-Dichloroethylene	Based on the NITE GHS classification results.
tert-Butyl methyl ether	Based on the NITE GHS classification results.
Carbon Tetrachloride	Based on the NITE GHS classification results.

Aspiration hazard

Chemical Name	Aspiration Hazard source information
Methanol	Based on the NITE GHS classification results.
Chloroform	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.
1,1,1-Trichloroethane	Based on the NITE GHS classification results.
Dichloromethane	Based on the NITE GHS classification results.
Bromoform	Based on the NITE GHS classification results.
Bromodichloromethane	Based on the NITE GHS classification results.
1,1-Dichloroethylene	Based on the NITE GHS classification results.
1,2-Dichloropropane	Based on the NITE GHS classification results.
1,1,2-Trichloroethane	Based on the NITE GHS classification results.
Trichloroethylene	Based on the NITE GHS classification results.
o-Xylene	Based on the NITE GHS classification results.
p-Xylene	Based on the NITE GHS classification results.
p-Dichlorobenzene	Based on the NITE GHS classification results.
1,2-Dichloroethane	Based on the NITE GHS classification results.

m-Xylene	Based on the NITE GHS classification results.
Toluene	Based on the NITE GHS classification results.
1,4-Dioxane	Based on the NITE GHS classification results.
Chlorodibromomethane	Based on the NITE GHS classification results.
Tetrachloroethylene	Based on the NITE GHS classification results.
cis-1,2-Dichloroethylene	Based on the NITE GHS classification results.
trans-1,2-Dichloroethylene	Based on the NITE GHS classification results.
tert-Butyl methyl ether	Based on the NITE GHS classification results.
Carbon Tetrachloride	Based on the NITE GHS classification results.

Section 12: ECOLOGICAL INFORMATION

Ecotoxicity

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Methanol	*N/A*	*LC50 : Lepomis macrochirus 15400 mg/L 96 h*	*LC50 : Artemia 1340 mg/L 96 h*
Chloroform	*EC50 : Chlamydomonas angulosa 13.3 mg/L 72 h*	*LC50 : Lepomis macrochirus 18 mg/L 96 h LC50 : Oncorhynchus mykiss 18 mg/L 96 h LC50 : Poecilia reticulata 300 mg/L 96 h LC50 : Pimephales promelas 71 mg/L 96 h*	*EC50 : Daphnia magna 29 mg/L 48 h*
Benzene	*EC50 : Pseudokirchneriella subcapitata 29 mg/L 72 h*	*LC50 : Oncorhynchus mykiss 5.3 mg/L 96 h EC50 : Fathead mino 0.8 mg/L 32 h*	*EC50 : Daphnia magna 8.76 - 15.6 mg/L 48 h*
1,1,1-Trichloroethane	*EbC50 : Chlamydomonas 0.536 mg/L 72 h*	*N/A*	*N/A*
Dichloromethane	*N/A*	*N/A*	*EC50:Daphnia magna 27 mg/L 48 h*
Bromoform	*LC50 : Cyprinodon variegatus 7100 µg/L 96 h*	*N/A*	*LC50 : Americamysis bahia 24.4 mg/L 96 h*
Bromodichloromethane	*EC50:Chlorella pyrenoidosa 1000 mg/L 96 h*	*N/A*	*N/A*
1,1-Dichloroethylene	*EbC50 : Chlamydomonas reinhardi 9.12 mg/L 72 h EC10 : Scenedesmus quadricauda 240 mg/L 96 h*	*N/A*	*EC50 : Daphnia magna 11.6 mg/L 48 h*
1,2-Dichloropropane	*N/A*	*LC50 : Pimephales promelas 119 - 135 mg/L 96 h LC50 : Lepomis macrochirus 220 - 340 mg/L 96 h LC50 : Pimephales promelas 127 mg/L 96 h*	*EC50 : Ceriodaphnia 13600 µg/L 48 h*
1,1,2-Trichloroethane	*EC50:Pseudokirchneriella subcapitata 51.4 mg/L 72h*	*LC50:Pimephales promelas 81.6 mg/L 96 h*	*EC50:Daphnia magna 18 mg/L 48 h*
Trichloroethylene	*EC50:Pseudokirchneriella subcapitata 175 mg/L 96 h EC50:Desmodesmus subspicatus 450 mg/L 96 h*	*LC50 : Pimephales promelas 31.4 - 71.8 mg/L 96 h LC50 : Lepomis macrochirus 39 - 54 mg/L 96 h*	*EC50:Daphnia magna 2.2 mg/L 48 h*
o-Xylene	*ErC50 : Scenedesmus sp.*	*LC50 : Oncorhynchus mykiss*	*EC50 : Daphnia magna*

	0.799 mg/L 72 h	*5.59 - 11.6 mg/L 96 h*	*0.78 - 2.51 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 : Morone saxatilis 1.7 mg/L 96 h*	*EC50 : Crangon crangon 1.7 mg/L 96 h*
p-Dichlorobenzene	*N/A*	*LC50:Oncorhynchus mykiss 1.05 - 1.2 mg/L 96 h LC50:Pimephales promelas 18 - 50 mg/L 96 h LC50:Lepomis macrochirus 3.9 - 4.8 mg/L 96 h LC50:Oncorhynchus mykiss 0.88 mg/L 96 h LC50:Pimephales promelas 4 mg/L 96 h*	*EC50:Daphnia magna 0.7mg/L 48 h*
1,2-Dichloroethane	*EC50:Desmodesmus subspicatus 166 mg/L 96 h static EC50:Pseudokirchneriella subcapitata 433 mg/L 96 h*	*LC50:Pimephales promelas 110 - 123 mg/L 96 h LC50:Lepomis macrochirus 230 - 710 mg/L 96 h LC50:Oncorhynchus mykiss 225 mg/L 96 h*	*LC50 : Artemia salina 12.8 mg/L 48 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 2.42 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*
1,4-Dioxane	*ErC50 : Pseudokirchneriella subcapitata > 1000 mg/L 72 h*	*LC50 : Oryzias latipes var. > 100 mg/L 96 h*	*EC50 : Daphnia magna > 1000 mg/L 48 h*
Chlorodibromomethane	*EC50 : Pseudokirchneriella subcapitata 9.6 mg/L 72 h*	*N/A*	*EC50 : Daphnia magna 0.063 mg/L 21 d*
Tetrachloroethylene	*EC50:Pseudokirchneriella subcapitata 500 mg/L 96 h*	*LC50:Lepomis macrochirus 11.0 - 15.0 mg/L 96 h LC50:Pimephales promelas 12.4 - 14.4 mg/L 96 h LC50:Oncorhynchus mykiss 4.73 - 5.27 mg/L 96 h LC50:Pimephales promelas 8.6 - 13.5 mg/L 96 h*	*EC50:Daphnia magna 6.1 - 9.0 mg/L 48 h*
cis-1,2-Dichloroethylene	*N/A*	*LC50 : Oryzias latipes 67.2 mg/L 96 h*	*EC50 : Daphnia magna 40.2mg/L 48 h*
trans-1,2-Dichloroethylene	*N/A*	*LC50:Lepomis macrochirus 135 mg/L 96 h*	*LC50：Daphnia magna 220 mg/L 48 h*
tert-Butyl methyl ether	*EC50 : Pseudokirchneriella subcapitata > 110 mg/L 72 h*	*LC50 : Oryzias latipes >120 mg/L 96 h*	*N/A*
Carbon Tetrachloride	*ErC50 : Pseudokirchneriella subcapitata 0.46 mg/L 72 h*	*LC50 : Oryzias latipes 7.6 mg/L 96 h*	*EC50:Daphnia magna 28 mg/L 24 h EC50:Daphnia magna 29 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
Methanol	Based on the NITE GHS classification	Based on the NITE GHS classification

	results.	results.
Chloroform	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Benzene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1,1,1-Trichloroethane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Dichloromethane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Bromoform	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Bromodichloromethane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1,1-Dichloroethylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1,2-Dichloropropane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1,1,2-Trichloroethane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Trichloroethylene	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.
p-Xylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
p-Dichlorobenzene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
1,2-Dichloroethane	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.
1,4-Dioxane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Chlorodibromomethane	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Tetrachloroethylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
cis-1,2-Dichloroethylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
trans-1,2-Dichloroethylene	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
tert-Butyl methyl ether	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Carbon Tetrachloride	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Persistence and degradability No information available
Bioaccumulative potential No information available
Mobility in soil No information available
Hazard to the ozone layer

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	UN1230
Proper shipping name:	Methanol
UN classfication	3
Subsidiary hazard class	6.1
Packing group	II
Marine pollutant	Not applicable

IMDG

UN number	UN1230
Proper shipping name:	Methanol
UN classfication	3
Subsidiary hazard class	6.1
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	UN1230
Proper shipping name:	Methanol
UN classfication	3
Subsidiary hazard class	6.1
Packing group	II
Environmentally Hazardous Substance	Not applicable

Section 15: REGULATORY INFORMATION

Japanese regulations

Fire Service Act	Category IV, alcohols, dangerous grade 2 water-soluble
Poisonous and Deleterious Substances Control Law	Deleterious Substances 2nd. Grade
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 Prevention of Organic Solvent Poisoning Art.1, Para.1, Item 5) Working Environment Evaluation Standards, Administrative Control Levels (Law Art.65-2, Para.1) Dangerous Substances - Flammable Substance (Enforcement Order Attached Table 1 Item 4) Substances designated by the Minister of Health, Labor and Welfare as carcinogenic(Ordinance on Industrial Safety and Health Art.577, Para.2)
Industrial Safety and Health Act (2024~)	【2024.4.1~】Chemical Substances Hazardous to Skin, etc.(Regulations Article 594-2 Paragraph 1)
Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc	Class II Specified Chemical Substances (Law Art.2, Para.3, Enforcement Order Art.1-2)
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)
Pollutant Release and Transfer Register Law (2023.4.1-)	Specified Class 1 No.
Specified Class 1-No.	400,178,281
Water Pollution Control Act	Harmful Substances (Law Art.2, Enforcement Order Art.2, Ordinace Designating Wastewater Standards Art.1)

Export Trade Control Order Appendix 2 Export Approval Item
Ozon protection act.(Japan) B-2 B-3
Air Pollution Control Law Specified Substances, Designated Chemical Substances, Priority Chemical Substances
Soil Contamination Control Law Designated Hazardous Substances

Chemical Name	Poisonous and Deleterious Substances Control Law	Industrial Safety and Health Act Substances (Law Art.57-2)	Pollutant Release and Transfer Register Law (2023.4.1-)
Methanol 67-56-1 (97.5)	-	Applicable	-
Chloroform 67-66-3 (0.1)	-	Applicable	-
Benzene 71-43-2 (0.1)	-	Applicable	Applicable
1,1,1-Trichloroethane 71-55-6 (0.1)	-	Applicable	-
Dichloromethane 75-09-2 (0.1)	-	Applicable	-
Bromoform 75-25-2 (0.1)	-	Applicable	-
Bromodichloromethane 75-27-4 (0.1)	-	Applicable	-
1,1-Dichloroethylene 75-35-4 (0.1)	-	Applicable	-
1,2-Dichloropropane 78-87-5 (0.1)	-	Applicable	Applicable
1,1,2-Trichloroethane 79-00-5 (0.1)	-	Applicable	-
Trichloroethylene 79-01-6 (0.1)	-	Applicable	Applicable
o-Xylene 95-47-6 (0.1)	-	Applicable	-
cis-1,3-Dichloropropene 10061-01-5 (0.1)	Applicable	Applicable	-
trans-1,3-Dichloropropene 10061-02-6 (0.1)	Applicable	Applicable	-
p-Xylene 106-42-3 (0.1)	-	Applicable	-
p-Dichlorobenzene 106-46-7 (0.1)	-	Applicable	-
1,2-Dichloroethane 107-06-2 (0.1)	-	Applicable	-
m-Xylene 108-38-3 (0.1)	-	Applicable	-
Toluene 108-88-3 (0.1)	-	Applicable	-
1,4-Dioxane 123-91-1 (0.1)	-	Applicable	-
Tetrachloroethylene 127-18-4 (0.1)	-	Applicable	-
cis-1,2-Dichloroethylene 156-59-2 (0.1)	-	Applicable	-
trans-1,2-Dichloroethylene 156-60-5 (0.1)	-	Applicable	-
tert-Butyl methyl ether 1634-04-4 (0.1)	-	Applicable	-
Carbon Tetrachloride 56-23-5 (0.1)	Applicable	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. 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