

## SAFETY DATA SHEET

According to JIS Z 7253:2019  
 Revision Date 15-Feb-2021  
 Version 1.02

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

<b>Product name</b>	25VOC Mixture Standard Solution (Methanol Solution)
<b>Product code</b>	225-02351

<b>Manufacturer</b>	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
<b>Supplier</b>	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
<b>Emergency telephone number</b>	+81-6-6203-3741 / +81-3-3270-8571
<b>Recommended uses and restrictions on use</b>	For research use only

## 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 tract irritation, Narcotic effects

## Specific target organ toxicity (repeated exposure)

Category 1

**Category 1** central nervous system, Visual organ

## Short-term (acute) hazardous to the aquatic environment

Category 3

## Long-term (chronic) hazardous to the aquatic environment

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

H402 - Harmful to aquatic life

H412 - Harmful to aquatic life with long lasting effects

H420 - Harms public health and the environment by destroying ozone in the upper atmosphere  
 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.
- Wash face, hands and any exposed skin thoroughly after handling
- Do not breathe dust/fume/gas/mist/vapors/spray
- 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/sparks/open flames/hot surfaces. — 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 CO<sub>2</sub>, 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
- 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	公表	67-56-1
Chloroform	0.1	119.38	(2)-37	公表	67-66-3
Benzene	0.1	78.11	(3)-1	公表	71-43-2
1,1,1-Trichloroethane	0.1	133.40	(2)-55	公表	71-55-6
Dichloromethane	0.1	84.93	(2)-36	公表	75-09-2
Bromoform	0.1	252.73	(2)-40	公表	75-25-2
Bromodichloromethane	0.1	163.83	N/A	N/A	75-27-4
1,1-Dichloroethylene	0.1	96.94	(2)-103	公表	75-35-4
1,2-Dichloropropane	0.1	112.99	(2)-81	公表	78-87-5
1,1,2-Trichloroethane	0.1	133.40	(2)-55	公表	79-00-5
Trichloroethylene	0.1	131.39	2-105	公表	79-01-6
o-Xylene	0.1	106.17	(3)-60,(3)-3	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)-60,(3)-3	4-(1)-39	106-42-3
p-Dichlorobenzene	0.1	147.00	(3)-41	公表	106-46-7

1,2-Dichloroethane	0.1	98.96	(2)-54	2-(13)-23	107-06-2
m-Xylene	0.1	106.16	(3)-60,(3)-3	4-(1)-39	108-38-3
Toluene	0.1	92.14	3-2,3-60	N/A	108-88-3
1,4-Dioxane	0.1	88.11	(5)-839	公表	123-91-1
Chlorodibromomethane	0.1	208.27	N/A	N/A	124-48-1
Tetrachloroethylene	0.1	165.83	(2)-114	公表	127-18-4
cis-1,2-Dichloroethylene	0.1	96.94	(2)-103	公表	156-59-2
trans-1,2-Dichloroethylene	0.1	96.94	(2)-103	公表	156-60-5
t-Butyl methyl ether	0.1	88.15	(2)-3220	2-(12)-134, (2)-133	1634-04-4
Carbon Tetrachloride	0.1	153.82	(2)-38	2-(13)-47	56-23-5

**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 (CO<sub>2</sub>), 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**

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	200ppm(260mg/m <sup>3</sup> )	200ppm	TWA 200ppm(260mg/m <sup>3</sup> ) STEL 250ppm
Chloroform 67-66-3	TWA: 3 ppm OEL TWA: 14.7 mg/m <sup>3</sup> 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: 1100 mg/m <sup>3</sup> OEL ISHL/ACL: 200 ppm	ISHL/ACL: 200 ppm	STEL: 450 ppm TWA: 350 ppm
Dichloromethane 75-09-2	50ppm,170mg/m <sup>3</sup>	ISHL/ACL: 50 ppm	TWA: 50 ppm
Bromoform 75-25-2	TWA: 1 ppm OEL TWA: 10.3 mg/m <sup>3</sup> OEL	N/A	TWA: 0.5 ppm
1,1-Dichloroethylene 75-35-4	N/A	N/A	TWA: 5 ppm
1,2-Dichloropropane 78-87-5	TWA: 1 ppm OEL TWA: 4.6 mg/m <sup>3</sup> 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/m <sup>3</sup> OEL Skin	N/A	TWA: 10 ppm Skin
Trichloroethylene 79-01-6	25ppm, 135mg/m <sup>3</sup>	ISHL/ACL: 10 ppm	STEL: 25 ppm TWA: 10 ppm

o-Xylene 95-47-6	50 ppm(217 mg/m <sup>3</sup> )	ISHL/ACL: 50 ppm	STEL: 150 ppm TWA: 100 ppm
trans-1,3-Dichloropropene 10061-02-6	N/A	N/A	TWA 1ppm(skin) 4.5mg/m <sup>3</sup>
p-Xylene 106-42-3	TWA: 50 ppm OEL TWA: 217 mg/m <sup>3</sup> OEL ISHL/ACL: 50 ppm	ISHL/ACL: 50 ppm	STEL: 150 ppm TWA: 100 ppm
p-Dichlorobenzene 106-46-7	TWA: 10 ppm OEL TWA: 60 mg/m <sup>3</sup> OEL	N/A	TWA: 10 ppm
1,2-Dichloroethane 107-06-2	TWA: 10 ppm OEL TWA: 40 mg/m <sup>3</sup> OEL ISHL/ACL: 10 ppm	ISHL/ACL: 10 ppm	TWA: 10 ppm
m-Xylene 108-38-3	TWA: 50 ppm OEL TWA: 217 mg/m <sup>3</sup> OEL ISHL/ACL: 50 ppm	ISHL/ACL: 50 ppm	STEL: 150 ppm TWA: 100 ppm
Toluene 108-88-3	50ppm, 188 mg/m <sup>3</sup> ; 经皮吸收 percutaneous absorption	ISHL/ACL: 20 ppm	TWA: 20 ppm
1,4-Dioxane 123-91-1	10ppm(36mg/m <sup>3</sup> )	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
t-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/m <sup>3</sup> OEL Skin ISHL/ACL: 5 ppm	ISHL/ACL: 5 ppm	STEL: 10 ppm TWA: 5 ppm Skin

**Personal protective equipment**

<b>Respiratory protection</b>	gas mask for organic gas
<b>Hand protection</b>	Impermeable protective gloves
<b>Eye protection</b>	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**

<b>Color</b>	colorless
<b>Turbidity</b>	clear
<b>Appearance</b>	liquid
<b>Odor</b>	characteristic odor
<b>Melting point/freezing point</b>	No data available
<b>Boiling point, initial boiling point and boiling range</b>	65 °C
<b>Flammability</b>	Highly flammable liquid and vapor
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Upper/lower flammability or explosive limits</b>	
Upper :	36.5%
Lower :	6%
<b>Flash point</b>	11 °C / 52 °F
<b>Auto-ignition temperature:</b>	464 °C / 867 °F
<b>Decomposition temperature:</b>	No data available
<b>pH</b>	No data available
<b>Viscosity (coefficient of viscosity)</b>	No data available
<b>Dynamic viscosity</b>	No data available

<b>Solubilities</b>	water or organic solvents : miscible .
<b>n-Octanol/water partition coefficient:(log Pow)</b>	No data available
<b>Vapour pressure</b>	No data available
<b>Specific Gravity / Relative density</b>	0.79
<b>Vapour density</b>	No data available
<b>Particle characteristics</b>	No data available

## Section 10: STABILITY AND REACTIVITY

### Stability

<b>Reactivity</b>	No data available
<b>Chemical stability</b>	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 monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Halides

## Section 11: TOXICOLOGICAL INFORMATION

### Acute toxicity

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Methanol	1400 mg/kg (human)	15800 mg/kg (rabbit)	>22500 ppm (rat) 8 h (vapor)
Chloroform	695 mg/kg ( Rat )	> 20 g/kg ( Rabbit )	9,636 ppm /4h ( Rat )
Benzene	810 mg/kg ( rat )	>8,200 mg/kg ( rabbit )	14000 ppm (rat)
1,1,1-Trichloroethane	10300 mg/kg ( Rat )	15800 mg/kg ( Rabbit )	13000 ppm ( Rat ) 6 h
Dichloromethane	2,280 mg/kg ( Rat )	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 ) 200 mg/kg ( Rat )	N/A	1.66 mg/L ( Rat ) 4 h 6350 ppm ( Rat ) 4 h
1,2-Dichloropropane	1,900 mg/kg ( Rat )	10,115 mg/kg ( Rabbit )	14 mg/L 10h(Rat)
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	3608 mg/kg ( Rat )	14100 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 4h
1,2-Dichloroethane	670 mg/kg(Rat)	2800 mg/kg(Rabbit)	1000 ppm(Rat) 4h
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)
1,4-Dioxane	4200 mg/kg (rat)	2100 mg/kg (rat)	9158 ppm (rat) 4h
Tetrachloroethylene	2629 mg/kg ( Rat )	N/A	27.8 mg/L ( Rat ) 4 h
trans-1,2-Dichloroethylene	1,235 mg/kg ( Rat )	1,000 mg/kg ( Rabbit )	24,041 ppm ( Rat ) 4h
t-Butyl methyl ether	2963 mg/kg ( Rat )	> 10000 mg/kg ( Rat ) > 2000 mg/kg ( Rabbit )	23576 ppm ( Rat ) 4h
Carbon Tetrachloride	2350 mg/kg (rat)	15000 mg/kg (rabbit)	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	Based on the NITE GHS	Based on the NITE GHS



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.
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.
t-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**

<b>Chemical Name</b>	<b>Skin corrosion/irritation source information</b>
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.
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.
t-Butyl methyl ether	Based on the NITE GHS classification results.
Carbon Tetrachloride	Based on the NITE GHS classification results.

**Serious eye damage/ irritation**

<b>Chemical Name</b>	<b>Serious eye damage/irritation source information</b>
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.
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.
t-Butyl methyl ether	Based on the NITE GHS classification results.
Carbon Tetrachloride	Based on the NITE GHS classification results.

**Respiratory or skin sensitization**

<b>Chemical Name</b>	<b>Respiratory or Skin sensitization source information</b>
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.
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.
t-Butyl methyl ether	Based on the NITE GHS classification results.
Carbon Tetrachloride	Based on the NITE GHS classification results.

**Reproductive cell mutagenicity**

<b>Chemical Name</b>	<b>germ cell mutagenicity source information</b>
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.
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.
t-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.
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.
t-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 2A Group 2B Group 3	A3	Group 2B
Benzene 71-43-2	Known	Group 1	A1	Group 1
1,1,1-Trichloroethane 71-55-6		Group 2A Group 3		
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 2A		Group 1
1,1,2-Trichloroethane 79-00-5	-	Group 3	A3	-
Trichloroethylene 79-01-6	Known Reasonably Anticipated	Group 1 Group 3	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 2A Group 2B	A3	Group 2B
1,2-Dichloroethane 107-06-2	Reasonably Anticipated	Group 2A 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
Tetrachloroethylene 127-18-4	Reasonably Anticipated	Group 2A	A3	Group 2B
t-Butyl methyl ether 1634-04-4	-	Group 3	A3	-
Carbon Tetrachloride 56-23-5	Reasonably Anticipated	Group 2A 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.
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.
t-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.
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.
t-Butyl methyl ether	Based on the NITE GHS classification results.
Carbon Tetrachloride	Based on the NITE GHS classification results.

**STOT-repeated exposure**

<b>Chemical Name</b>	<b>STOT -repeated exposure- source information</b>
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.
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.
t-Butyl methyl ether	Based on the NITE GHS classification results.
Carbon Tetrachloride	Based on the NITE GHS classification results.

**Aspiration hazard**

<b>Chemical Name</b>	<b>Aspiration Hazard source information</b>
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.
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.
t-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
Chloroform	EC50 : <i>Chlamydomonas angulosa</i> 13.3 mg/L 72 h	LC50: <i>Lepomis macrochirus</i> 18 mg/L 96 h LC50: <i>Oncorhynchus mykiss</i> 18 mg/L 96 h LC50: <i>Poecilia reticulata</i> 300 mg/L 96 h LC50: <i>Pimephales promelas</i> 71 mg/L 96 h	EC50: <i>Daphnia magna</i> 29 mg/L 48 h
Benzene	EC50 : <i>Pseudokirchneriella subcapitata</i> 29 mg/L 72 h	LC50 : <i>Oncorhynchus mykiss</i> 5.3 mg/L 96 h EC50 : Fathead mino 0.8 mg/L 32 h	EC50 : <i>Daphnia magna</i> 8.76 -15.6 mg/L 48 h
1,1,1-Trichloroethane	EbC50: <i>Chlamydomonas</i> 0.536 mg/L 72 h	LC50: <i>Pimephales promelas</i> 35.2 - 50.7 mg/L 96 h	LC50: Brine shrimp 8000 ug/L 24 h
Dichloromethane	N/A	NOEC(body weight) : Fathead minnow 82.5 mg/L 32 d	EC50: <i>Daphnia magna</i> 27 mg/L 48 h
Bromoform	LC50: <i>Cyprinodon variegatus</i> 7100 µg/L 96h	N/A	LC50: <i>Americamysis bahia</i> 24.4 mg/L 96h
Bromodichloromethane	EC50: <i>Chlorella pyrenoidosa</i> 1000mg/L, 96h	N/A	N/A
1,1-Dichloroethylene	EbC50: <i>Chlamydomonas reinhardi</i> 9.12 mg/L EC10: <i>Scenedesmus quadricauda</i> 240 mg/L	LC50: <i>Pimephales promelas</i> 161 - 179 mg/L 96 h LC50: <i>Lepomis macrochirus</i> 57 - 91 mg/L 96 h LC50: <i>Pimephales promelas</i> 85 - 117 mg/L 96 h	LC50: <i>Daphnia magna</i> 62 - 110 mg/L 48 h LC50: <i>Daphnia magna</i> 9.0 - 14.0 mg/L 48 h
1,2-Dichloropropane	N/A	LC50: <i>Pimephales promelas</i> 119 - 135 mg/L 96 h LC50: <i>Lepomis macrochirus</i> 220 - 340 mg/L 96 h LC50: <i>Pimephales promelas</i> 127 mg/L 96 h	EC50: <i>Ceriodaphnia</i> 13600 µg/L 48 h
1,1,2-Trichloroethane	EC50: <i>Pseudokirchneriella subcapitata</i> 51.4 mg/L 72h	LC50: <i>Pimephales promelas</i> 81.6 mg/L 96 h	EC50: <i>Daphnia magna</i> 18 mg/L 48 h
Trichloroethylene	EC50: <i>Pseudokirchneriella subcapitata</i> 175 mg/L 96 h EC50: <i>Desmodesmus subspicatus</i> 450 mg/L 96 h	LC50: <i>Pimephales promelas</i> 31.4 - 71.8 mg/L 96 h LC50: <i>Lepomis macrochirus</i> 39 - 54 mg/L 96 h	EC50: <i>Daphnia magna</i> 2.2 mg/L 48 h
o-Xylene	ErC50 : <i>Scenedesmus</i> sp. 0.799 mg/L 72h	LC50 : <i>Oncorhynchus mykiss</i> 5.59 - 11.6 mg/L 96 h	EC50 : <i>Daphnia magna</i> 0.78 - 2.51 mg/L 48 h
p-Xylene	EC50: <i>Chlorella vulgaris</i> 105.1 mg/L 3 h EC50: <i>Pseudokirchneriella subcapitata</i> 3.2 mg/L 72 h static	LC50: <i>Pimephales promelas</i> 7.2 - 9.9 mg/L 96 h LC50: <i>Oncorhynchus mykiss</i> 2.6 mg/L 96 h LC50: <i>Poecilia reticulata</i> 8.8 mg/L 96 h	EC50: <i>Daphnia magna</i> 3.55 - 6.31 mg/L 48 h
p-Dichlorobenzene	N/A	LC50: <i>Oncorhynchus mykiss</i> 1.05 - 1.2 mg/L 96 h LC50: <i>Pimephales promelas</i> 18 - 50 mg/L 96 h LC50: <i>Lepomis macrochirus</i> 3.9 - 4.8 mg/L 96 h LC50: <i>Oncorhynchus mykiss</i> 0.88 mg/L 96 h LC50: <i>Pimephales promelas</i> 4 mg/L 96 h	EC50: <i>Daphnia magna</i> 0.7mg/L 48h

1,2-Dichloroethane	<i>EC50:Desmodesmus subspicatus</i> 166 mg/L 96 h static <i>EC50:Pseudokirchneriella subcapitata</i> 433 mg/L 96 h	<i>LC50:Pimephales promelas</i> 110 - 123 mg/L 96 h <i>LC50:Lepomis macrochirus</i> 230 - 710 mg/L 96 h <i>LC50:Oncorhynchus mykiss</i> 225 mg/L 96 h	<i>LC50 : Artemia salina</i> 12.8 mg/L 48 h
m-Xylene	<i>EC50:Pseudokirchneriella subcapitata</i> 4.9 mg/L 72 h static	<i>LC50:Pimephales promelas</i> 14.3 - 18 mg/L 96 h <i>LC50:Poecilia reticulata</i> 12.9 mg/L 96 h <i>LC50:Oncorhynchus mykiss</i> 8.4 mg/L 96 h	<i>EC50:Daphnia magna</i> 2.81 - 5.0 mg/L 48 h
Toluene	<i>EC50:Pseudokirchneriella subcapitata</i> 433 mg/L 96 h	<i>LC50:Pimephales promelas</i> 15.22 - 19.05 mg/L 96 h	<i>EC50:Ceriodaphnia dubia</i> 3.78 mg/L 48 h
1,4-Dioxane	<i>EC50:Pseudokirchneriella subcapitata</i> > 1000 mg/L 72 h	<i>LC50:Killifish</i> > 100 mg/L 96 h	<i>EC50:Daphnia magna</i> > 1000 mg/L 48 h
Tetrachloroethylene	<i>EC50:Pseudokirchneriella subcapitata</i> 500 mg/L 96 h	<i>LC50:Lepomis macrochirus</i> 11.0 - 15.0 mg/L 96 h <i>LC50:Pimephales promelas</i> 12.4 - 14.4 mg/L 96 h <i>LC50:Oncorhynchus mykiss</i> 4.73 - 5.27 mg/L 96 h <i>LC50:Pimephales promelas</i> 8.6 - 13.5 mg/L 96 h	<i>EC50:Daphnia magna</i> 6.1 - 9.0 mg/L 48 h
trans-1,2-Dichloroethylene	N/A	<i>LC50:Lepomis macrochirus</i> 135 mg/L 96 h	<i>LC50 : Daphnia magna</i> 220 mg/L 48 h
t-Butyl methyl ether	<i>EC50:Pseudokirchneriella subcapitata</i> >110 mg/L 72 h	<i>LC50:Oryzias latipes</i> >120 mg/L 96h	<i>NOEC:Daphnia magna</i> 11 mg/L 21d
Carbon Tetrachloride	<i>EC50:Pseudokirchneriella subcapitata</i> 0.46 mg/L 72 h	<i>LC50:Lepomis macrochirus</i> 23 - 33 mg/L 96 h <i>LC50:Pimephales promelas</i> 36.3 - 47.3 mg/L 96 h <i>LC50:Pimephales promelas</i> 9.68 - 11.3 mg/L 96 h	<i>EC50:Daphnia magna</i> 28 mg/L 24 h <i>EC50:Daphnia magna</i> 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 results.	Based on the NITE GHS classification 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.
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.
t-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.

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

### 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

<b>UN number</b>	UN1230
<b>Proper shipping name:</b>	Methanol
<b>UN classification</b>	3
<b>Subsidiary hazard class</b>	6.1
<b>Packing group</b>	II
<b>Marine pollutant</b>	Not applicable

#### IMDG

<b>UN number</b>	UN1230
<b>Proper shipping name:</b>	Methanol
<b>UN classification</b>	3
<b>Subsidiary hazard class</b>	6.1
<b>Packing group</b>	II
<b>Marine pollutant (Sea)</b>	Not applicable
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	No information available

#### IATA

<b>UN number</b>	UN1230
<b>Proper shipping name:</b>	Methanol
<b>UN classification</b>	3
<b>Subsidiary hazard class</b>	6.1
<b>Packing group</b>	II
<b>Environmentally Hazardous</b>	Not applicable

## Substance

## Section 15: REGULATORY INFORMATION

International Inventories

EINECS/ELINCS -  
TSCA -

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, Para.1, Enforcement Order Art.18)  
 Notifiable Substances (Law Art.57-2, Enforcement Order Art.18-2 Attached Table No.9)No.136,160,226,227,240,241,254,256,257,359,383,384,401,407,441,501,531,560  
 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)  
**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 Notification for Air Transportation of Explosives etc., Attached Table 1)  
**Pollutant Release and Transfer Register Law** Specified Class 1 No.  
**Specified Class 1-No.** 400  
**Water Pollution Control Act** Harmful Substances (Law Art.2, Enforcement Order Art.2, Ordinance Designating Wastewater Standards Art.1)  
**Export Trade Control Order** Appendix 2  
**Ozon protection act.(Japan)**  
**Air Pollution Control Law** Hazardous Air Pollutants  
**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
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	-
1,1,2-Trichloroethane	-	Applicable	-



Chemical Name	Poisonous and Deleterious Substances Control Law	Industrial Safety and Health Act Substances (Law Art.57-2)	Pollutant Release and Transfer Register Law
79-00-5 ( 0.1 )			
Trichloroethylene 79-01-6 ( 0.1 )	-	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	-
t-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 Organic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd.  
 Chemical Dictionary, Kyouritsu Publishing Co., Ltd.  
 etc

### 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 Z7252(2019). \*JIS: Japanese Industrial Standards

**End of Safety Data Sheet**