



Other hazards ---

Further information ---

### 3 Composition/Information on Ingredients

Mixtures

Mixture of solvents in aerosol can

Chemical Name	CAS-No.	EC No.	Registration Number	Classification (REGULATION (EC) No. 1272/2008)	Conc.(wt%)
Propan-2-ol	67-63-0	200-661-7	01-2119457558-25-XXXX	Flam. Liq. 2; H225 Eye Irrit. 2; H319 STOT SE 3; H336	10-20
2-Methylpropan-1-ol	78-83-1	201-148-0	01-2119484609-23-XXXX	Flam. Liq. 3; H226 Skin Irrit. 2; H315 Eye Dam. 1; H318 STOT SE 3; H335 STOT SE 3; H336	1-5
1-Methoxy-2-propanol	107-98-2	203-539-1	01-2119457435-35-XXXX	Flam. Liq. 3; H226 STOT SE 3; H336	1-5
2-Butoxyethanol	111-76-2	203-905-0	01-2119475108-36-XXXX	Acute Tox. 4; H312 Acute Tox. 4; H332 Acute Tox. 4; H302 Skin Irrit. 2; H315 Eye Irrit. 2; H319	1-5
2-Ethoxy-Ethanol	110-80-5	203-804-1	603-012-00-X	Flam. Liq. 3; H226 Acute Tox. 4; H302 Acute Tox. 3; H331 Repr. 1B; H360 (FD)	0,2
Ethanol	64-17-5	200-578-6	01-2119457610-43-XXXX	Flam. Liq. 2; H225	1-5
Dimethyl ether	115-10-6	204-065-8	01-2119472128-37-XXXX	Press.Gas Flam. Gas 1; H220	60-70

For the full text of the H-statements mentioned in this section, see section 16.

### 4 First-Aid measures

[ If in Eyes ]

- Wash eyes with plenty of water and in case of persistence of irritation, get medical attention.

[ If on Skin ]

- Wash with plenty of soap and water, and get medical attention immediately.

[ If Inhaled ]

- If feel unwell because of inhalation, remove to fresh air and keep at rest in a position comfortable for breathing, and call a physician.

[ If Swallowed ]

- Call a physician immediately.

### 5 Fire-Fighting measures

Suitable extinguishing media: Water[ ] CO2[\*] Foam[\*] Dry chemical[\*] Dry sand[\*]

Fire fighting method

- Wear proper protective clothes such as heat insulating clothes/gloves/face shield and/or eye protection.
- Use specified extinguishing media.
- Remove combustible material from surrounding area.
- Start fire fighting from windward
- Do not use water as the extinguishing media.

### 6 Accidental release measures

- Avoid contact with skin. Wear appropriate protective equipment (protective gloves, eye/face protection, apron and long sleeved clothes) when handling spill of this product.
- Wear protective equipment and collect spillage into air-tight container that can be tightly closed. Move the container to a safe place.
- Dispose contaminant and waste in accordance with regulations relative to disposal.

- Eliminate all ignition sources such as heat, sparks, open flames and combustible materials.
- Provide appropriate extinguisher to prepare for fire.
- Do not use steel tools as it may cause impact sparks. Tool should be static free.
- Absorb with dry sand, earth or noncombustible material. In case of large spill, hold back with earth to prevent spreading.
- Avoid release to rivers to prevent effect to environment.

## 7 Handling and storage

### [ Cautions on Handling ]

- May cause poisoning if on skin or inhaled.
- Keep away from ignition sources such as heat/sparks/open flame, and ventilate work area when handling this product.
- Ventilate work area to prevent inhalation of vapor/fume/spray/dust.
- Avoid contact with skin. Wear protective gloves, eye/face protection and long sleeved clothes if necessary.
- If spilled or leaked, wipe with cloth and discard contaminated materials into a container which is filled with water.
- Dip contaminated cloth, spray dust and/or mist into water until they are discarded properly.
- After use, wash hands and gargle mouth thoroughly.
- Do not use this product other than the purpose specified by the manufacturer/supplier.

### [ Cautions on Storage ]

- Keep container tightly closed. Store in cool and ventilated indoor place. Protect from direct sun light.
- Keep reach out of children.
- Keep away from flame or heat sources.

## 8 Exposure Controls/Personal Protection

### [ Facilities Recommendation ]

- All facilities should be explosion proof.
- Prevent vapor from retention by installation of a proper ventilator.
- Ground/bond container or receiving equipment for transportation, mixing and/or transferring of this product.
- Do not locate heat/flame generating facilities close to the work area.
- If spray indoor, install coating facilities so that workers are protected from direct exposure to spray mist, or install adequate ventilation.
- For handling in closed tanks, install appropriate ventilator which secures ventilation to the bottom of the tank.

### [ Protective Equipments ]

- Respiratory Protection: Wear gas mask for organic gas. Wear self-contained breathing apparatus in case of operation in closed areas.
- Eye Protection: Wear goggle type of eye protection.
- Skin Protection: Wear appropriate gloves which is impervious to organic solvents and chemicals.
- Other Protection: Work clothes specified by the manufacturer or supplier, and safety shoes.

### Threshold Limit of Ingredient

Substance name	JOHSC	ACGIH(TLVs-TWA)
2-Propanol	(MAX)400ppm/ (MAX)980mg/m <sup>3</sup>	200ppm
isobutyl alcohol	50ppm/ 150mg/m <sup>3</sup>	50ppm
2-Propanol, 1-methoxy-	No data available	50ppm
Ethanol, 2-butoxy-	25ppm	20ppm
Ethanol	No data available	1000ppm
Ethanol, 2-ethoxy-	5ppm/ 18mg/m <sup>3</sup>	5ppm
Methane, oxybis-	No data available	No data available

\* JOHSC : Japan Occupational Health Service Centre

## 9 Physical and Chemical Properties

Form Liquid[*] Gas[ ] Solid[ ]	Color: Clear	Solubility: No data available
Odor: Solvent odor	Explosion Limits: 1,1vol% (Lower)	Octanol-Water Partition
pH: Not Applicable	26,7vol% (Upper)	Coefficient: No data available
Melting Point: No data available	Vapor	Ignition Point: 238°C
Boiling Point: -23,6°C	Pressure: 5800Pa(20°C)	Decomposition
Flash Point: 23,0°C	Vapor Density: No data available	Temperature: No data available
	Density: 0.800±0.100g/cm <sup>3</sup>	Other: None particular

## 10 Stability and Reactivity

### [ Reactivity Information ]

- Materials to be avoided: Keep away from strong oxides and/or peroxides that will cause polymerization and/or generate heat or fire by mixing or contact.
- Hazardous thermal decomposition products: CO, CO<sub>2</sub>, HCl, vapors of solvents.
- Other reactivity information: None.

## 11 Toxicological Information

Substance name	Acute toxicity (LD50, LC50, etc.)				
	Oral	Dermal	Inhalation (Gas)	Inhalation (Vapor)	Inhalation (Dust, Mist)
2-Propanol	Not Categorized 3437mg/kg	Not Categorized 4059mg/kg	Not Applicable	Not Categorized 29512ppm	Not Classifiable
isobutyl alcohol	Not Categorized 2596mg/kg	Not Categorized 2523mg/kg	Not Applicable	Category 4 6336ppm	Not Classifiable
2-Propanol, 1-methoxy-	Not Categorized 5200mg/kg	Not Categorized 13000mg/kg	Not Applicable	Category 4 7395ppm	Not Classifiable
Ethanol, 2-butoxy-	Category 4 470mg/kg	Category 3 300mg/kg	Not Applicable	Category 2 450ppm	Not Classifiable
Ethanol	Not Categorized >5,000mg/kg	Not Categorized >20,000mg/kg	Not Applicable	Not Categorized 20661ppm	Not Classifiable
Ethanol, 2-ethoxy-	Not Categorized 3017 mg/kg	Not Categorized 3311 mg/kg	Not Applicable	Category 4 4267 ppm	Not Classifiable
Methane, oxybis-	Not Classifiable	Not Classifiable	Not Categorized 164000ppmV	Not Applicable	Not Applicable

Health Hazard Information on Ingredient Table 2

Substance name	Skin Corrosion • Irritation	Serious Damage to Eyes • Eye Irritation	Respiratory Sensitization	Skin Sensitization	Germ Cell Mutagenicity	Carcinogenicity
2-Propanol	Not Categorized	Category 2A-2B	Not Classifiable	Not Classifiable	Not Categorized	Not Categorized
isobutyl alcohol	Category 2	Category 2A	Not Classifiable	Not Classifiable	Not Categorized	Not Classifiable
2-Propanol, 1-methoxy-	Not Categorized	Category 2B	Not Classifiable	Not Classifiable	Not Categorized	Not Categorized
Ethanol, 2-butoxy-	Category 2	Category 2A	Not Classifiable	Not Categorized	Not Categorized	Not Categorized
Ethanol	Not Categorized	Category 2B	Not Classifiable	Not Classifiable	Category 1B	Not Classifiable
Ethanol, 2-ethoxy-	Not Categorized	Category 2B	Not Classifiable	Not Classifiable	Not Categorized	Not Classifiable
Methane, oxybis-	Not Classifiable	Not Classifiable	Not Classifiable	Not Classifiable	Not Classifiable	Not Classifiable

Health Hazard Information on Ingredient Table 3

Substance name	Reproductive toxicity	Specific Target Organ (Single Exposure)
2-Propanol	Category 2	Category 1 (Central nervous system, Kidney, Systemic toxicology)
isobutyl alcohol	Not Categorized	Category 3 (Respiratory tract irritation, Narcotic effects)
2-Propanol, 1-methoxy-	Not Categorized	Category 3 (Narcotic effects)
Ethanol, 2-butoxy-	Category 2	Category 1 (Central nervous system, Blood, Kidney, Liver)
Ethanol	Category 1A	Category 3 (Respiratory tract irritation, Narcotic effects)
Ethanol, 2-ethoxy-	Category 1B	Category 1 (Central nervous system, Kidney, Liver, Spermery)
Methane, oxybis-	Not Classifiable	Category 3 (Narcotic effects)

Health Hazard Information of Ingredient Table 4

Substance name	Specific Target Organ (Repeat Exposure)	Aspiration Respiratory Toxicity
2-Propanol	Category 2 (Blood vessel, Liver, Spleen)	Not Categorized
isobutyl alcohol	Not Categorized	Not Categorized
2-Propanol, 1-methoxy-	Not Categorized	Not Classifiable
Ethanol, 2-butoxy-	Category 2 (Blood)	Not Classifiable
Ethanol	Category 1 (Liver)	Not Classifiable
Ethanol, 2-ethoxy-	Category 1 (Spermery, Haematopoietic systems)	Not Classifiable

## 12 Ecological information

### Aqueous Milieu Hazard Information on Ingredient

Substance name	Hazardous to Aquatic Environment (Acute)	Hazardous to Aquatic Environment (Chronic)
2-Propanol	Not Categorized	Not Categorized
isobutyl alcohol	Not Categorized	Not Categorized
2-Propanol, 1-methoxy-	Not Categorized	Not Categorized
Ethanol, 2-butoxy-	Not Categorized	Not Categorized
Ethanol	Not Categorized	Not Categorized
Ethanol, 2-ethoxy-	Not Categorized	Not Categorized

## 13 Disposal Considerations

- Content should be used up before disposal of container.
- Container/content should be disposed in accordance with local, regional and national regulations.

## 14 Transport Information

General Information:	Follow general instructions described in the "Precautions on Handling and Storage".
Ground Transportation:	Transportation must be done in accordance with the appropriate regulations in case this product falls under a category of regulations such as Fire Service Law (Japan), Industrial Safety and Health Law (Japan), etc.
Marine Transportation:	Comply stipulation of appropriate maritime regulations.
Air Transportation:	Comply stipulations of appropriate air transportation regulations.
UN Number:	1950
Proper Shipping name:	Aerosol
Class:	3
Packing Group:	III

## 15 Regulatory Information

Particular hazards associated with the preparation and safety recommendations:

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## 16 Other Information

Full text risk of H-statements referred to under sections 2 and 3:

H220: Extremely flammable gas  
H222: Extremely flammable aerosol  
H225: Highly flammable liquid and vapour  
H226: Flammable liquid and vapour  
H229: Pressurized container: may burst if heated  
H302: Harmful if swallowed  
H312: Harmful in contact with skin  
H315: Causes skin irritation  
H318: Causes serious eye damage  
H319: Causes serious eye irritation  
H332: Harmful if inhaled  
H335: May cause respiratory irritation  
H336: May cause drowsiness or dizziness  
H360: May damage fertility or the unborn child  
EUH066: Repeated exposure may cause skin dryness or cracking

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, use, processing, storage, transportation, disposal and release and is not 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.

Parts of the Safety Data Sheet marked with red line have been updated.

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