

# SAFETY DATA SHEET

GC Calibration Standard of Oxygenates in Gasoline, Part Number 18900-60640

## Section 1. Identification

### 1.1 Product identifier

**Product name** : GC Calibration Standard of Oxygenates in Gasoline, Part Number 18900-60640  
**Part no.** : 18900-60640  
**Validation date** : 5/16/2018

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Material uses** :  Reagents and Standards for Analytical Chemistry Laboratory Use  
 3 x 0.5 ml / ampoule

### 1.3 Details of the supplier of the safety data sheet

**Supplier/Manufacturer** : Agilent Technologies, Inc.  
 5301 Stevens Creek Blvd  
 Santa Clara, CA 95051, USA  
 800-227-9770

### 1.4 Emergency telephone number

**In case of emergency** : CHEMTREC®: 1-800-424-9300

## Section 2. Hazards identification

### 2.1 Classification of the substance or mixture

**OSHA/HCS status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### Classification of the substance or mixture

H224 FLAMMABLE LIQUIDS - Category 1  
 H315 SKIN IRRITATION - Category 2  
 H318 SERIOUS EYE DAMAGE - Category 1  
 H340 GERM CELL MUTAGENICITY - Category 1  
 H350 CARCINOGENICITY - Category 1B  
 H360 TOXIC TO REPRODUCTION (Unborn child) - Category 1B  
 H361 TOXIC TO REPRODUCTION (Fertility) - Category 2  
 H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3  
 H373 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (liver) - Category 2  
 H304 ASPIRATION HAZARD - Category 1  
 H411 AQUATIC HAZARD (LONG-TERM) - Category 2

**Ingredients of unknown toxicity** : Percentage of the mixture consisting of ingredient(s) of unknown dermal toxicity: 1 - 10%  
 Percentage of the mixture consisting of ingredient(s) of unknown inhalation toxicity: 1 - 10%

### 2.2 GHS label elements

**Hazard pictograms** :



**Signal word** :

Danger

## Section 2. Hazards identification

- Hazard statements** : H224 - Extremely flammable liquid and vapor.  
 H318 - Causes serious eye damage.  
 H315 - Causes skin irritation.  
 H340 - May cause genetic defects.  
 H350 - May cause cancer.  
 H360 - May damage the unborn child.  
 H361 - Suspected of damaging fertility.  
 H304 - May be fatal if swallowed and enters airways.  
 H336 - May cause drowsiness or dizziness.  
 H373 - May cause damage to organs through prolonged or repeated exposure. (liver)  
 H411 - Toxic to aquatic life with long lasting effects.
- Precautionary statements**
- Prevention** : P201 - Obtain special instructions before use.  
 P202 - Do not handle until all safety precautions have been read and understood.  
 P280 - Wear protective gloves. Wear eye or face protection. Wear protective clothing.  
 P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
 P241 - Use explosion-proof electrical, ventilating, lighting and all material-handling equipment.  
 P242 - Use only non-sparking tools.  
 P243 - Take precautionary measures against static discharge.  
 P233 - Keep container tightly closed.  
 P271 - Use only outdoors or in a well-ventilated area.  
 P273 - Avoid release to the environment.  
 P260 - Do not breathe vapor.  
 P264 - Wash hands thoroughly after handling.
- Response** : P391 - Collect spillage.  
 P314 - Get medical attention if you feel unwell.  
 P308 + P313 - IF exposed or concerned: Get medical attention.  
 P304 + P340 + P312 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or physician if you feel unwell.  
 P301 + P310 + P331 - IF SWALLOWED: Immediately call a POISON CENTER or physician. Do NOT induce vomiting.  
 P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.  
 P302 + P352 + P362+P364 - IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse.  
 P332 + P313 - If skin irritation occurs: Get medical attention.  
 P305 + P351 + P338 + P310 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or physician.
- Storage** : P405 - Store locked up.  
 P403 - Store in a well-ventilated place.  
 P235 - Keep cool.
- Disposal** : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
- 2.3 Other hazards**
- Hazards not otherwise classified** : None known.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

Ingredient name	%	CAS number
Gasoline, natural	≥75 - ≤90	8006-61-9
tert-Butyl methyl ether	<5	1634-04-4
2-Methylpropan-2-ol	≤3	75-65-0
Methanol	<3	67-56-1
Butan-1-ol	≤1.6	71-36-3
2-Methylbutan-2-ol	≤1.6	75-85-4
Butan-2-ol	≤1.6	78-92-2
Ethanol	≤1.6	64-17-5
2-Methylpropan-1-ol	≤1.6	78-83-1
Propan-1-ol	≤1.9	71-23-8
Propan-2-ol	≤1.9	67-63-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in Section 8.**

## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

- Eye contact** : Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
- Inhalation** : Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : Get medical attention immediately. Call a poison center or physician. Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. Wash clothing before reuse. Clean shoes thoroughly before reuse.
- Ingestion** : Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Aspiration hazard if swallowed. Can enter lungs and cause damage. Do not induce vomiting. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### 4.2 Most important symptoms/effects, acute and delayed

#### Potential acute health effects

- Eye contact** : Causes serious eye damage.

## Section 4. First aid measures

- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

### Over-exposure signs/symptoms

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
stomach pains  
nausea or vomiting  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

- Suitable extinguishing media** : Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.
- Unsuitable extinguishing media** : Do not use water jet.

### 5.2 Special hazards arising from the substance or mixture

## Section 5. Fire-fighting measures

**Specific hazards arising from the chemical** : Extremely flammable liquid and vapor. Runoff to sewer may create fire or explosion hazard. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. The vapor/gas is heavier than air and will spread along the ground. Vapors may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:  
carbon dioxide  
carbon monoxide  
Formaldehyde.

### 5.3 Advice for firefighters

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**6.2 Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

### 6.3 Methods and materials for containment and cleaning up

**Methods for cleaning up** : Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## Section 7. Handling and storage

### 7.1 Precautions for safe handling

**Protective measures** : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not swallow. Avoid release to the environment. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof

## Section 7. Handling and storage

- electrical (ventilating, lighting and material handling) equipment. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene**
- : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- 7.2 Conditions for safe storage, including any incompatibilities**
- : Store in accordance with local regulations. Store in a segregated and approved area. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Store locked up. Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.
- 7.3 Specific end use(s)**
- Recommendations** : Industrial applications, Professional applications.
- Industrial sector specific solutions** : Not applicable.

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
Gasoline, natural	<p><b>OSHA PEL 1989 (United States, 3/1989).</b>            TWA: 300 ppm 8 hours.            TWA: 900 mg/m<sup>3</sup> 8 hours.            STEL: 500 ppm 15 minutes.            STEL: 1500 mg/m<sup>3</sup> 15 minutes.</p>
tert-Butyl methyl ether	<p><b>ACGIH TLV (United States, 3/2017).</b>            TWA: 50 ppm 8 hours.</p>
2-Methylpropan-2-ol	<p><b>OSHA PEL 1989 (United States, 3/1989).</b>            TWA: 100 ppm 8 hours.            TWA: 300 mg/m<sup>3</sup> 8 hours.            STEL: 150 ppm 15 minutes.            STEL: 450 mg/m<sup>3</sup> 15 minutes.  <b>ACGIH TLV (United States, 3/2017).</b>            TWA: 100 ppm 8 hours.            TWA: 303 mg/m<sup>3</sup> 8 hours.  <b>NIOSH REL (United States, 10/2016).</b>            TWA: 100 ppm 10 hours.            TWA: 300 mg/m<sup>3</sup> 10 hours.            STEL: 150 ppm 15 minutes.            STEL: 450 mg/m<sup>3</sup> 15 minutes.  <b>OSHA PEL (United States, 6/2016).</b>            TWA: 100 ppm 8 hours.            TWA: 300 mg/m<sup>3</sup> 8 hours.</p>
Methanol	<p><b>ACGIH TLV (United States, 3/2017).</b>  <b>Absorbed through skin.</b>            TWA: 200 ppm 8 hours.            TWA: 262 mg/m<sup>3</sup> 8 hours.</p>

## Section 8. Exposure controls/personal protection

Butan-1-ol	<p>STEL: 250 ppm 15 minutes.            STEL: 328 mg/m<sup>3</sup> 15 minutes.  <b>OSHA PEL 1989 (United States, 3/1989).</b>  <b>Absorbed through skin.</b>            TWA: 200 ppm 8 hours.            TWA: 260 mg/m<sup>3</sup> 8 hours.            STEL: 250 ppm 15 minutes.            STEL: 325 mg/m<sup>3</sup> 15 minutes.  <b>NIOSH REL (United States, 10/2016).</b>  <b>Absorbed through skin.</b>            TWA: 200 ppm 10 hours.            TWA: 260 mg/m<sup>3</sup> 10 hours.            STEL: 250 ppm 15 minutes.            STEL: 325 mg/m<sup>3</sup> 15 minutes.  <b>OSHA PEL (United States, 6/2016).</b>            TWA: 200 ppm 8 hours.            TWA: 260 mg/m<sup>3</sup> 8 hours.</p> <p><b>ACGIH TLV (United States, 3/2017).</b>            TWA: 20 ppm 8 hours.  <b>OSHA PEL 1989 (United States, 3/1989).</b>  <b>Absorbed through skin.</b>            CEIL: 50 ppm            CEIL: 150 mg/m<sup>3</sup>  <b>NIOSH REL (United States, 10/2016).</b>  <b>Absorbed through skin.</b>            CEIL: 50 ppm            CEIL: 150 mg/m<sup>3</sup>  <b>OSHA PEL (United States, 6/2016).</b>            TWA: 100 ppm 8 hours.            TWA: 300 mg/m<sup>3</sup> 8 hours.</p>
2-Methylbutan-2-ol Butan-2-ol	<p>None.  <b>OSHA PEL 1989 (United States, 3/1989).</b>            TWA: 100 ppm 8 hours.            TWA: 305 mg/m<sup>3</sup> 8 hours.  <b>ACGIH TLV (United States, 3/2017).</b>            TWA: 100 ppm 8 hours.            TWA: 303 mg/m<sup>3</sup> 8 hours.  <b>NIOSH REL (United States, 10/2016).</b>            TWA: 100 ppm 10 hours.            TWA: 305 mg/m<sup>3</sup> 10 hours.            STEL: 150 ppm 15 minutes.            STEL: 455 mg/m<sup>3</sup> 15 minutes.  <b>OSHA PEL (United States, 6/2016).</b>            TWA: 150 ppm 8 hours.            TWA: 450 mg/m<sup>3</sup> 8 hours.</p>
Ethanol	<p><b>ACGIH TLV (United States, 3/2017).</b>            STEL: 1000 ppm 15 minutes.  <b>OSHA PEL 1989 (United States, 3/1989).</b>            TWA: 1000 ppm 8 hours.            TWA: 1900 mg/m<sup>3</sup> 8 hours.  <b>NIOSH REL (United States, 10/2016).</b>            TWA: 1000 ppm 10 hours.            TWA: 1900 mg/m<sup>3</sup> 10 hours.  <b>OSHA PEL (United States, 6/2016).</b>            TWA: 1000 ppm 8 hours.            TWA: 1900 mg/m<sup>3</sup> 8 hours.</p>
2-Methylpropan-1-ol	<p><b>ACGIH TLV (United States, 3/2017).</b></p>



## Section 8. Exposure controls/personal protection

Propan-1-ol	<p>TWA: 50 ppm 8 hours. TWA: 152 mg/m<sup>3</sup> 8 hours. <b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 50 ppm 8 hours. TWA: 150 mg/m<sup>3</sup> 8 hours. <b>NIOSH REL (United States, 10/2016).</b> TWA: 50 ppm 10 hours. TWA: 150 mg/m<sup>3</sup> 10 hours. <b>OSHA PEL (United States, 6/2016).</b> TWA: 100 ppm 8 hours. TWA: 300 mg/m<sup>3</sup> 8 hours.</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 200 ppm 8 hours. TWA: 500 mg/m<sup>3</sup> 8 hours. STEL: 250 ppm 15 minutes. STEL: 625 mg/m<sup>3</sup> 15 minutes. <b>NIOSH REL (United States, 10/2016).</b> <b>Absorbed through skin.</b> TWA: 200 ppm 10 hours. TWA: 500 mg/m<sup>3</sup> 10 hours. STEL: 250 ppm 15 minutes. STEL: 625 mg/m<sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 6/2016).</b> TWA: 200 ppm 8 hours. TWA: 500 mg/m<sup>3</sup> 8 hours. <b>ACGIH TLV (United States, 3/2017).</b> TWA: 100 ppm 8 hours.</p>
Propan-2-ol	<p><b>ACGIH TLV (United States, 3/2017).</b> TWA: 200 ppm 8 hours. STEL: 400 ppm 15 minutes. <b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 400 ppm 8 hours. TWA: 980 mg/m<sup>3</sup> 8 hours. STEL: 500 ppm 15 minutes. STEL: 1225 mg/m<sup>3</sup> 15 minutes. <b>NIOSH REL (United States, 10/2016).</b> TWA: 400 ppm 10 hours. TWA: 980 mg/m<sup>3</sup> 10 hours. STEL: 500 ppm 15 minutes. STEL: 1225 mg/m<sup>3</sup> 15 minutes. <b>OSHA PEL (United States, 6/2016).</b> TWA: 400 ppm 8 hours. TWA: 980 mg/m<sup>3</sup> 8 hours.</p>

### 8.2 Exposure controls

#### Appropriate engineering controls

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. The engineering controls also need to keep gas, vapor or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

#### Environmental exposure controls

: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.



## Section 8. Exposure controls/personal protection

### Individual protection measures

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

- Physical state** : Liquid. [Clear.]
- Color** : Not available.
- Odor** : Mild. [Strong]
- Odor threshold** : Not available.
- pH** : Not available.
- Melting point** : Not available.
- Boiling point** : 27.78°C (82°F)
- Flash point** : Closed cup: <-37.22°C (<-35°F)
- Evaporation rate** : <1 (butyl acetate = 1)
- Flammability (solid, gas)** : Not applicable.
- Lower and upper explosive (flammable) limits** : Lower: 1.5%  
Upper: 7.6%
- Vapor pressure** : Not available.
- Vapor density** : >3 [Air = 1]
- Relative density** : 0.74 [Water = 1]
- Density** : 0.74 g/cm<sup>3</sup>

## Section 9. Physical and chemical properties

<b>Solubility</b>	: Insoluble in the following materials: cold water and hot water.
<b>Partition coefficient: n-octanol/water</b>	: Not available.
<b>Auto-ignition temperature</b>	: 260°C (500°F)
<b>Decomposition temperature</b>	: Not available.
<b>Viscosity</b>	: Not available.

## Section 10. Stability and reactivity

<b>10.1 Reactivity</b>	: No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: The product is stable.
<b>10.3 Possibility of hazardous reactions</b>	: Under normal conditions of storage and use, hazardous reactions will not occur.
<b>10.4 Conditions to avoid</b>	: Avoid all possible sources of ignition (spark or flame). Do not pressurize, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
<b>10.5 Incompatible materials</b>	: Reactive or incompatible with the following materials: oxidizing materials
<b>10.6 Hazardous decomposition products</b>	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Gasoline, natural	LC50 Inhalation Dusts and mists	Rat	>5.2 mg/l	4 hours
	LD50 Oral	Rat	>5000 mg/kg	-
tert-Butyl methyl ether	LC50 Inhalation Vapor	Rat	41000 mg/m <sup>3</sup>	4 hours
	LC50 Inhalation Vapor	Rat	23576 ppm	4 hours
	LD50 Oral	Rat	4 g/kg	-
2-Methylpropan-2-ol	LC50 Inhalation Vapor	Rat	14100 ppm	4 hours
	LD50 Oral	Rat	2733 mg/kg	-
Methanol	LC50 Inhalation Vapor	Rat	145000 ppm	1 hours
	LC50 Inhalation Vapor	Rat	64000 ppm	4 hours
	LD50 Dermal	Rabbit	15800 mg/kg	-
Butan-1-ol	LD50 Oral	Rat	5600 mg/kg	-
	LC50 Inhalation Vapor	Rat	24000 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
2-Methylbutan-2-ol	LD50 Oral	Rat	790 mg/kg	-
	LD50 Oral	Rat	1 g/kg	-
Butan-2-ol	LC50 Inhalation Vapor	Rat	48500 mg/m <sup>3</sup>	4 hours
	LC50 Inhalation Vapor	Rat	8000 ppm	4 hours
	LD50 Oral	Rat	2054 mg/kg	-
Ethanol	LC50 Inhalation Vapor	Rat	124700 mg/m <sup>3</sup>	4 hours
	LD50 Oral	Rat	7 g/kg	-
2-Methylpropan-1-ol	LC50 Inhalation Vapor	Rat	19200 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rabbit	3400 mg/kg	-
	LD50 Oral	Rat	2460 mg/kg	-

**Section 11. Toxicological information**

Propan-1-ol	LC50 Inhalation Vapor	Rat - Male, Female	>33.8 mg/l	4 hours
	LD50 Dermal	Rabbit	5040 mg/kg	-
Propan-2-ol	LD50 Oral	Rat	1870 mg/kg	-
	LD50 Dermal	Rabbit	12800 mg/kg	-
	LD50 Oral	Rat	5000 mg/kg	-

**Irritation/Corrosion**

Product/ingredient name	Result	Species	Score	Exposure	Observation
2-Methylpropan-2-ol	Eyes - Severe irritant	Rabbit	-	24 hours 100 microliters	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 microliters	-
Methanol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	40 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
Butan-1-ol	Eyes - Severe irritant	Rabbit	-	0.005 Milliliters	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Eyes - Severe irritant	Rabbit	-	24 hours 2 milligrams	-
Butan-2-ol	Eyes - Severe irritant	Rabbit	-	0.1 Milliliters	-
Ethanol	Eyes - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	0.066666667 minutes 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	100 microliters	-
	Skin - Mild irritant	Rabbit	-	400 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
Propan-1-ol	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-
Propan-2-ol	Eyes - Moderate irritant	Rabbit	-	24 hours 100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	10 milligrams	-
	Skin - Mild irritant	Rabbit	-	500 milligrams	-

**Conclusion/Summary**

**Skin** : Repeated exposure may cause skin dryness or cracking.

**Sensitization**

Not available.

**Mutagenicity**

**Conclusion/Summary** : Not available.

**Carcinogenicity**

**Conclusion/Summary** : Not available.

**Classification**

## Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
Gasoline, natural	-	2B	-
tert-Butyl methyl ether	-	3	-
Ethanol	-	1	-
Propan-2-ol	-	3	-

### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Gasoline, natural	Category 3	Not applicable.	Narcotic effects
tert-Butyl methyl ether	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
2-Methylpropan-2-ol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Methanol	Category 1	Not determined	central nervous system (CNS) and optic nerve
	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Butan-1-ol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
2-Methylbutan-2-ol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Butan-2-ol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Ethanol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
2-Methylpropan-1-ol	Category 3	Not applicable.	Respiratory tract irritation and Narcotic effects
Propan-1-ol	Category 3	Not applicable.	Narcotic effects
Propan-2-ol	Category 3	Not applicable.	Narcotic effects

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Propan-2-ol	Category 2	Not determined	liver

### Aspiration hazard

Name	Result
GC Calibration Standard of Oxygenates in Gasoline, Part Number 18900-60640	ASPIRATION HAZARD - Category 1
Gasoline, natural	ASPIRATION HAZARD - Category 1
Butan-1-ol	ASPIRATION HAZARD - Category 1

## Section 11. Toxicological information

**Information on the likely routes of exposure** : Routes of entry anticipated: Oral, Dermal, Inhalation.

### Potential acute health effects

- Eye contact** : Causes serious eye damage.
- Inhalation** : Can cause central nervous system (CNS) depression. May cause drowsiness or dizziness.
- Skin contact** : Causes skin irritation.
- Ingestion** : Can cause central nervous system (CNS) depression. May be fatal if swallowed and enters airways.

### Symptoms related to the physical, chemical and toxicological characteristics

- Eye contact** : Adverse symptoms may include the following:  
pain  
watering  
redness
- Inhalation** : Adverse symptoms may include the following:  
nausea or vomiting  
headache  
drowsiness/fatigue  
dizziness/vertigo  
unconsciousness  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Skin contact** : Adverse symptoms may include the following:  
pain or irritation  
redness  
blistering may occur  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations
- Ingestion** : Adverse symptoms may include the following:  
stomach pains  
nausea or vomiting  
reduced fetal weight  
increase in fetal deaths  
skeletal malformations

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Long term exposure

- Potential immediate effects** : Not available.
- Potential delayed effects** : Not available.

#### Potential chronic health effects

- General** : May cause damage to organs through prolonged or repeated exposure.
- Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.
- Mutagenicity** : May cause genetic defects.

## Section 11. Toxicological information

- Teratogenicity** : May damage the unborn child.  
**Developmental effects** : No known significant effects or critical hazards.  
**Fertility effects** : Suspected of damaging fertility.

### Numerical measures of toxicity

#### Acute toxicity estimates

Route	ATE value
Oral	3940.8 mg/kg
Dermal	13783.8 mg/kg
Inhalation (vapors)	123.5 mg/l

- Other information** : Adverse symptoms may include the following: addiction or dependence, blurred or double vision. Eye contact can result in corneal damage or blindness. Repeated or prolonged exposure to the substance can produce liver damage.

## Section 12. Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
Gasoline, natural	Acute EC50 17.5 mg/l Marine water	Crustaceans - Artemia sp. - Nauplii	48 hours
	Acute EC50 1.5 mg/l Marine water	Daphnia - Daphnia magna - Neonate	48 hours
tert-Butyl methyl ether	Acute EC50 472 mg/l Fresh water	Daphnia	48 hours
	Acute IC50 491 mg/l Fresh water	Algae	72 hours
	Acute LC50 672000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 26 mg/l Marine water	Daphnia	28 days
2-Methylpropan-2-ol	Chronic NOEC 3.04 mg/l Fresh water	Fish	21 days
	Acute EC50 5504000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 6410000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Methanol	Acute LC50 2500000 µg/l Marine water	Crustaceans - Crangon crangon - Adult	48 hours
	Acute LC50 3289 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	48 hours
Butan-1-ol	Acute LC50 290 mg/l Fresh water	Fish - Danio rerio - Egg	96 hours
	Chronic NOEC 9.96 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 1983000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 225 mg/l Fresh water	Algae	96 hours
2-Methylbutan-2-ol	Acute LC50 1730000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute LC50 450 mg/l Fresh water	Daphnia - Daphnia magna	48 hours
Butan-2-ol	Acute EC50 4227000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 3670000 µg/l Fresh water	Fish - Pimephales promelas	96 hours
Ethanol	Acute EC50 17.921 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Acute EC50 2000 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 25500 µg/l Marine water	Crustaceans - Artemia franciscana - Larvae	48 hours
	Acute LC50 42000 µg/l Fresh water	Fish - Oncorhynchus mykiss	4 days
	Chronic NOEC 4.995 mg/l Marine water	Algae - Ulva pertusa	96 hours
	Chronic NOEC 100 µl/L Fresh water	Daphnia - Daphnia magna - Neonate	21 days
2-Methylpropan-1-ol	Chronic NOEC 0.375 µl/L Fresh water	Fish - Gambusia holbrooki - Larvae	12 weeks
	Acute LC50 600 mg/l Marine water	Crustaceans - Artemia salina	48 hours
	Acute LC50 1030000 µg/l Fresh water	Daphnia - Daphnia magna -	48 hours

## Section 12. Ecological information

Propan-1-ol	Acute LC50 1330000 µg/l Fresh water Chronic NOEC 4000 µg/l Fresh water Acute EC50 4480000 µg/l Fresh water Acute LC50 1000000 µg/l Fresh water	Neonate Fish - Oncorhynchus mykiss Daphnia - Daphnia magna Algae - Selenastrum sp.	96 hours 21 days 96 hours
Propan-2-ol	Acute LC50 2950000 µg/l Fresh water Acute LC50 3800000 µg/l Marine water Acute EC50 10100 mg/l Fresh water Acute LC50 1400000 µg/l Marine water Acute LC50 4200 mg/l Fresh water	Crustaceans - Gammarus pulex Daphnia - Daphnia pulex Fish - Alburnus alburnus Daphnia - Daphnia magna Crustaceans - Crangon crangon Fish - Rasbora heteromorpha	48 hours 48 hours 96 hours 48 hours 48 hours 96 hours

### 12.2 Persistence and degradability

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
tert-Butyl methyl ether	-	50%; 3.2 day(s)	-
2-Methylpropan-2-ol	-	-	Inherent
Butan-1-ol	-	-	Readily
2-Methylbutan-2-ol	-	-	Inherent
Butan-2-ol	-	-	Readily
Ethanol	-	-	Readily
2-Methylpropan-1-ol	-	-	Readily
Propan-1-ol	-	-	Readily
Propan-2-ol	-	-	Readily

### 12.3 Bioaccumulative potential

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
Gasoline, natural	2.1 to 6	10 to 2500	high
tert-Butyl methyl ether	1.04	1.5	low
2-Methylpropan-2-ol	0.317	5.01	low
Methanol	-0.77	<10	low
Butan-1-ol	1	-	low
2-Methylbutan-2-ol	0.89	-	low
Butan-2-ol	0.61	-	low
Ethanol	-0.35	0.5	low
2-Methylpropan-1-ol	1	3	low
Propan-1-ol	0.2	-	low
Propan-2-ol	0.05	-	low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

**12.5 Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

### 13.1 Waste treatment methods

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a



## Section 13. Disposal considerations

safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Vapor from product residues may create a highly flammable or explosive atmosphere inside the container. Do not cut, weld or grind used containers unless they have been cleaned thoroughly internally. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

### United States - RCRA Toxic hazardous waste "U" List

Ingredient	CAS #	Status	Reference number
Methanol (I); Methyl alcohol (I)	67-56-1	Listed	U154
1-Butanol (I); n-Butyl alcohol (I)	71-36-3	Listed	U031
Isobutyl alcohol (I,T); 1-Propanol, 2-methyl- (I,T)	78-83-1	Listed	U140

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.

The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## Section 14. Transport information

DOT / TDG / Mexico / IMDG / IATA : Not regulated.

### Additional information

Remarks: De minimis quantities

**Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not available.

## Section 15. Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

**U.S. Federal regulations** : TSCA 8(a) PAIR: 2-Methylpropan-2-ol; Butan-2-ol  
TSCA 8(a) CDR Exempt/Partial exemption: Not determined

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

## Section 15. Regulatory information

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

**Classification** : **FLAMMABLE LIQUIDS - Category 1**  
 SKIN IRRITATION - Category 2  
 SERIOUS EYE DAMAGE - Category 1  
 GERM CELL MUTAGENICITY - Category 1  
 CARCINOGENICITY - Category 1B  
 TOXIC TO REPRODUCTION (Unborn child) - Category 1B  
 TOXIC TO REPRODUCTION (Fertility) - Category 2  
 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3  
 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (liver) - Category 2  
 ASPIRATION HAZARD - Category 1

#### Composition/information on ingredients

Name	%	Classification
Gasoline, natural	≥75 - ≤90	FLAMMABLE LIQUIDS - Category 1 SKIN IRRITATION - Category 2 GERM CELL MUTAGENICITY - Category 1B CARCINOGENICITY - Category 1B TOXIC TO REPRODUCTION (Fertility) - Category 2 TOXIC TO REPRODUCTION (Unborn child) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 HNOC - Static-accumulating flammable liquid
tert-Butyl methyl ether	<5	FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
2-Methylpropan-2-ol	≤3	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Methanol	<3	FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 3 ACUTE TOXICITY (dermal) - Category 3 ACUTE TOXICITY (inhalation) - Category 3 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A TOXIC TO REPRODUCTION (Unborn child) - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (central nervous system (CNS), optic nerve) - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Butan-1-ol	≤1.6	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract

## Section 15. Regulatory information

2-Methylbutan-2-ol	≤1.6	irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 ASPIRATION HAZARD - Category 1 HNOC - Defatting irritant FLAMMABLE LIQUIDS - Category 2 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Butan-2-ol	≤1.6	FLAMMABLE LIQUIDS - Category 3 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Ethanol	≤1.6	HNOC - Defatting irritant FLAMMABLE LIQUIDS - Category 2 SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
2-Methylpropan-1-ol	≤1.6	HNOC - Defatting irritant FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (inhalation) - Category 4 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Propan-1-ol	≤1.9	FLAMMABLE LIQUIDS - Category 3 ACUTE TOXICITY (oral) - Category 4 SERIOUS EYE DAMAGE - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3
Propan-2-ol	≤1.9	FLAMMABLE LIQUIDS - Category 2 EYE IRRITATION - Category 2A SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (liver) - Category 2 HNOC - Defatting irritant

### SARA 313

	Product name	CAS number	%
<b>Form R - Reporting requirements</b>	tert-Butyl methyl ether	1634-04-4	<5
	2-Methylpropan-2-ol	75-65-0	≤3
	Methanol	67-56-1	<3
	Butan-1-ol	71-36-3	≤1.6
	Butan-2-ol	78-92-2	≤1.6
<b>Supplier notification</b>	tert-Butyl methyl ether	1634-04-4	<5
	2-Methylpropan-2-ol	75-65-0	≤3
	Methanol	67-56-1	<3
	Butan-1-ol	71-36-3	≤1.6
	Butan-2-ol	78-92-2	≤1.6


SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

### State regulations

## Section 15. Regulatory information

- Massachusetts** : The following components are listed: GASOLINE; METHANOL; METHYL ALCOHOL; TERT-BUTYL ALCOHOL; 2-METHYL-2-PROPANOL; METHYL TERT-BUTYL ETHER; N-BUTYL ALCOHOL; 1-BUTANOL; 2-METHYL-2-BUTANOL; SEC-BUTYL ALCOHOL; 2-BUTANOL; ETHYL ALCOHOL; DENATURED ALCOHOL; ISOBUTYL ALCOHOL; PROPYL ALCOHOL; PROPANOL; ISOPROPYL ALCOHOL; 2-PROPANOL
- New York** : The following components are listed: Methanol; Methyl tert-butyl ether; Butyl alcohol; 1-Butanol; Isobutanol; 1-Propanol, 2-methyl-
- New Jersey** : The following components are listed: GASOLINE; GASOLINE, NATURAL; METHYL ALCOHOL; METHANOL; tert-BUTYL ALCOHOL; 2-PROPANOL, 2-METHYL-; METHYL-tert-BUTYL ETHER; PROPANE, 2-METHOXY-2-METHYL-; n-BUTYL ALCOHOL; 1-BUTANOL; 2-METHYL-2-BUTANOL; 2-BUTANOL, 2-METHYL-; sec-BUTYL ALCOHOL; 2-BUTANOL; ETHYL ALCOHOL; ALCOHOL; ISOBUTYL ALCOHOL; 1-PROPANOL, 2-METHYL-; PROPYL ALCOHOL; 1-PROPANOL; ISOPROPYL ALCOHOL; 2-PROPANOL
- Pennsylvania** : The following components are listed: METHANOL; 2-PROPANOL, 2-METHYL-; METHYL TERT-BUTYL ETHER; 1-BUTANOL; 2-BUTANOL, 2-METHYL-; 2-BUTANOL; DENATURED ALCOHOL; ETHANOL; 1-PROPANOL, 2-METHYL-; 1-PROPANOL; 2-PROPANOL

### California Prop. 65

 **WARNING:** This product can expose you to Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Ingredient name	No significant risk level	Maximum acceptable dosage level
Methanol	-	Yes.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol (Annexes A, B, C, E)

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.


#### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

#### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

- Australia** : All components are listed or exempted.
- Canada** : All components are listed or exempted.
- China** : All components are listed or exempted.
- Europe** : All components are listed or exempted.
- Japan** :  **Japan inventory (ENCS):** All components are listed or exempted.  
**Japan inventory (ISHL):** Not determined.
- Malaysia** : Not determined.
- New Zealand** : All components are listed or exempted.
- Philippines** : All components are listed or exempted.

## Section 15. Regulatory information

<b>Republic of Korea</b>	: All components are listed or exempted.
<b>Taiwan</b>	: All components are listed or exempted.
<b>Thailand</b>	: Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: All components are listed or exempted.
<b>Viet Nam</b>	: Not determined.

## Section 16. Other information

### History

<b>Date of issue</b>	: 05/16/2018
<b>Date of previous issue</b>	: 11/23/2017
<b>Version</b>	: 7

### Procedure used to derive the classification

Classification	Justification
<input checked="" type="checkbox"/> FLAMMABLE LIQUIDS - Category 1 SKIN IRRITATION - Category 2 SERIOUS EYE DAMAGE - Category 1 GERM CELL MUTAGENICITY - Category 1 CARCINOGENICITY - Category 1B TOXIC TO REPRODUCTION (Unborn child) - Category 1B TOXIC TO REPRODUCTION (Fertility) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (liver) - Category 2 ASPIRATION HAZARD - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2	On basis of test data Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Expert judgment Calculation method

Indicates information that has changed from previously issued version.

### Notice to reader

**Disclaimer:** The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.