

**Section 1 - Chemical Product and Company Information****Product Name: Methanol    SDS: 3230**

COMPANY IDENTITY: Webb Chemical Service Corp.  
COMPANY ADDRESS: 2708 Jarman Street  
COMPANY CITY: Muskegon Hts., MI 49444  
COMPANY PHONE: 1-231-733-2181

EMERGENCY PHONE: CHEMTREC: 1-800-424-9300 (USA)

Product Use: Industrial solvent and chemical intermediate

**Section 2 - Hazards Identification****GHS Ratings:**

Flammable liquid	2	Flash point < 23°C and initial boiling point > 35°C (95°F)
Oral Toxicity	Acute Tox. 3	Oral>50+<=300mg/kg
Dermal Toxicity	Acute Tox. 3	Dermal>200+<=1000mg/kg
Inhalation Toxicity	Acute Tox. 3	Gases>500+<=2500ppm, Vapors>2+<=10mg/l, Dusts&mists>0.5+<=1mg/l
Organ toxin single exposure	1	Significant toxicity in humans- Reliable, good quality human case studies or epidemiological studies, Presumed significant toxicity in humans- Animal studies with significant and/or severe toxic effects relevant to humans at generally low exposure (guidan

**GHS Hazards**

H225	Highly flammable liquid and vapor
H301	Toxic if swallowed
H311	Toxic in contact with skin
H331	Toxic if inhaled
H370	Causes damage to organs

**GHS Precautions**

P210	Keep away from heat/sparks/open flames/hot surfaces – No smoking
P233	Keep container tightly closed
P235	Keep cool
P240	Ground/bond container and receiving equipment
P241	Use explosion-proof electrical/ventilating/lighting/equipment
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P260	Do not breathe dust/fume/gas/mist/vapors/spray
P264	Wash face, hands and any exposed skin thoroughly after handling
P270	Do not eat, drink or smoke when using this product
P271	Use only outdoors or in a well-ventilated area
P280	Wear protective gloves, protective clothing, eye protection/face protection

P311	Call a POISON CENTER or doctor/physician
P312	Call a POISON CENTER or doctor/physician if you feel unwell
P321	Specific treatment (see sections 4-8 of this safety data sheet)
P322	Specific measures (see sections 4-8 of this safety data sheet)
P330	Rinse mouth
P363	Wash contaminated clothing before reuse
P301+P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P303+P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340	IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
P307+P311	IF exposed: Call a POISON CENTER or doctor/physician
P370+P378	In case of fire: Use dry chemical or alcohol resistant foam for extinction.
P405	Store locked up
P403+P233	Store in a well ventilated place. Keep container tightly closed
P501	Dispose of contents/container to an approved waste disposal plant.

**Signal Word: Danger**



### Section 3 - Composition/Information on Ingredients

Chemical Name	CAS number	Weight Concentration %
Methyl alcohol	67-56-1	100 %

### Section 4 - First Aid Measures

**General:** Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Call a POISON CENTRE or doctor/physician. Methanol is toxic and flammable. Take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate protective equipment and remove any sources of ignition).

**Inhalation:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. If breathing is difficult, give oxygen. Obtain medical attention.

**Skin contact:** Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Immediately call a POISON CENTRE or doctor/physician. Wash contaminated clothing before reuse.

**Eye contact:** Rinse immediately and thoroughly, pulling the eyelids well away from the eye (15 minutes minimum). Remove contact lenses, if present and easy to do. Continue rinsing. Ensure that folded skin of eyelids is thoroughly washed with water. Obtain medical attention if pain, blinking or redness persist.

**Ingestion:** Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Never give anything by mouth to an unconscious person.

**Notes to Physician:** Gastric lavage

**Most important symptoms and effects, both acute and delayed**

**Inhalation:** Toxic if inhaled. Symptoms may include dizziness, headache, nausea and loss of coordination and CNS depression. Metabolic acidosis and severe visual effects can occur following an 8-24-hour latent period. Coma and death, usually due to respiratory failure, may occur if medical treatment is not received. Visual effects may include reduced reactivity and/or increased sensitivity to light, blurred, double and/or snowy vision, and blindness.

**Skin Contact:** Toxic in contact with skin. Repeated exposure to this material can result in absorption through skin causing a significant health hazard. Repeated and/or prolonged skin contact may cause irritation.

**Eye Contact:** Eye contact may cause eye irritation. Symptoms include: burning, redness, tearing and swelling.

**Ingestion:** Ingestion of as little as 10 ml of methanol can cause blindness and 30 ml (1 ounce) can cause death if victim is not treated. Ingestion causes mild central nervous system (CNS) depression with nausea, headache, vomiting, dizziness, incoordination and an appearance of drunkenness. Metabolic acidosis and severe visual effects can occur following an 8-24-hour latent period. Coma and death, usually due to respiratory failure, may occur if medical treatment is not received. Visual effects may include reduced reactivity and/or increased sensitivity to light, blurred, double and/or snowy vision, and blindness.

**Delayed effects of exposure:** The most common permanent adverse health effects following severe methanol poisoning are damage to or death of the nerve leading from the eye to the brain (optic neuropathy or atrophy), resulting in blindness; disease caused by damage to a particular region of the brain, resulting in difficulty walking and moving properly (Parkinsonism); damage to the brain caused by exposure to toxins, resulting in abnormal thought (encephalopathy); and damage to the peripheral nervous system.

**Effects of chronic or repeated exposure:** Methanol is not suspected to be a carcinogen. Chronic or repeated exposure to methanol is suspected to be a developmental toxicity risk. It is unknown whether chronic or repeated exposure to methanol is a reproductive toxicity risk. Methanol may cause birth defects of the central nervous system in humans. Chronic poisoning from repeated exposure to methanol vapor may produce inflammation of the eye (conjunctivitis), recurrent headaches, giddiness, insomnia, stomach disturbances, and visual failure. The most noted health consequences of longer-term exposure to lower levels of methanol are a broad range of effects on the eye. Inflammatory changes and irritation of the skin (dermatitis), occurs with chronic or repeated exposure to methanol.

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically. The severity of outcome following methanol ingestion may be more related to the time between ingestion and treatment, rather than the amount ingested. Therefore, there is a need for rapid treatment of any ingestion exposure. Antidote is fomepizole which enhances elimination of metabolic formic acid. This must be administered by a trained medical professional only. For specialist advice physicians should contact the Poison Control Center.

## Section 5 - Fire Fighting Measures

**Suitable extinguishing media:** Use dry chemical, CO<sub>2</sub>, water spray (fog) or foam.

**Unsuitable extinguishing media:** Do not use water jet.

**Special hazards arising from the substance or mixture:** Highly 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.

**Hazardous combustion products:** Thermal decomposition products include: carbon monoxide, carbon dioxide and formaldehyde.

**Advice for firefighters:** 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:** Wear a self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode and full protective gear.

## Section 6 - Accidental Release Measures

**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. Avoid breathing 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 nonemergency personnel".

**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.

### Methods and materials for containment and cleaning up

**Small Spill:** 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.

**Large Spill:** Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilled product. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7 - Handling and Storage

**Precautions for safe handling:** Put on appropriate personal protective equipment (see Section 8). Do not get in eyes, on skin or clothing. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Do not enter storage areas and confined spaces unless adequately ventilated. Use only non-sparking tools. Take precautionary measures against electrostatic discharges. Avoid release to the environment. Do not ingest. Empty containers retain product residue and can be hazardous. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Do not reuse container. Store and use away from heat, sparks, open flame or any other ignition source. Use explosion-proof electrical (ventilating, lighting and material-handling) equipment. Do not breathe vapor or mist. 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.

**Conditions for safe storage, including any incompatibilities:** 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.

## Section 8 - Exposure Controls / Personal Protection

Chemical Name / CAS No.	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Methyl alcohol 67-56-1	200 ppm TWA; 260 mg/m <sup>3</sup> TWA; 250 ppm STEL; 325 mg/m <sup>3</sup> STEL	250 ppm STEL 200 ppm TWA	NIOSH: 200 ppm TWA

**Appropriate Engineering Measures:** 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.

**Eye and face protection:** Tightly fitting safety goggles. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

**Hand protection:** Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling this product. 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. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.

**Other skin 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 antistatic protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. 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. Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

**General Hygiene Considerations:** 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. Avoid breathing mist or vapors. Avoid contact with skin, eyes and clothing. Do not eat, drink, smoke or use cosmetics while working with this product.

## Section 9 - Physical and Chemical Properties

This mixture typically exhibits the following properties under normal circumstances:

<b>Appearance:</b>	Clear, colorless liquid
<b>Odor:</b>	Alcohol
<b>Vapor Pressure:</b>	97@ 68 F (20C)
<b>Odor threshold:</b>	Not determined
<b>Vapor Density (air = 1):</b>	1.11
<b>pH:</b>	Unavailable
<b>Density:</b>	795 kg/m <sup>3</sup> at 15 °C
<b>Melting/Freezing point:</b>	-144 F (-98 C)
<b>Solubility:</b>	Complete (in water)
<b>Boiling point:</b>	147 F (64.5 C)
<b>Flash point:</b>	54 F (12 C) Closed Cup
<b>Evaporation rate:</b>	5.9 (Butyl Acetate = 1)
<b>Flammability (solid, gas):</b>	Not applicable
<b>Upper Explosive Limit:</b>	36.5
<b>Lower Explosive Limit:</b>	6.0
<b>Partition coefficient (n-octanol/water):</b>	LogPOW -0.77
<b>Autoignition temperature:</b>	867 F (464 C)
<b>Decomposition temperature:</b>	Unavailable
<b>Viscosity:</b>	0.544 - 0.59 mPa s at 25 °C
<b>Grams VOC less water:</b>	NA

## Section 10 - Stability and Reactivity

**Reactivity:** Reacts violently with oxidants causing fire and explosion hazard.

**Chemical stability:** Stable under recommended storage and handling conditions.

**Possibility of hazardous reactions:** Reacts violently with oxidants causing fire and explosion hazard. The vapour mixes well with air, explosive mixtures are easily formed.

**Conditions to avoid:** 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.

**Incompatible materials:** Oxidizers, Strong Acids

**Hazardous Decomposition products:** Thermal decomposition will produce Carbon oxides and formaldehyde.

## Section 11 - Toxicological Information

Toxicological information appears in this section when such data is available.

### Component Toxicity

#### Methyl Alcohol

Oral LD50: 5628 mg/kg (Rat)  
Oral LD50: 13 gm/kg (Man)  
Oral LD50: 340 mg/kg (Human)  
Oral LD50: 870 mg/kg (Mouse)  
Intraperitoneal LD50: 9540 mg/kg (Rat)  
Intravenous LD50: 5673 mg/kg (Mouse)  
Subcutaneous LD50: 9800 mg/kg (Mouse)  
Dermal LD50: 17,100 mg/kg (Rabbit)  
Inhalation LCLO: 64,000 ppm, 4 hr (Rat)  
Inhalation (vapor) LC50: 128,000 mg/m<sup>3</sup>, 4 hr (Rat)  
Inhalation (vapor) LC50: 85,400 mg/L, 4 hr (Cat)

**Acute Toxicity:** Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.

**Skin corrosion/irritation:** Does not meet the criteria for classification.

**Serious eye damage/eye irritation:** Does not meet the criteria for classification.

**Respiratory or skin sensitization:** Does not meet the criteria for classification.

**Germ cell mutagenicity:** Does not meet the criteria for classification.

**Carcinogenicity:** Does not meet the criteria for classification. No product ingredients are listed as a carcinogen under ACGIH, IARC, NTP and/or OSHA.

**Reproductive toxicity:** This product is not classified as Toxic to reproduction. However, animal studies have indicated that Methanol may adversely affect fertility and development of the unborn child.

#### Fertility:

NOAEC (Rat) = 1.3 mg/L  
NOAEC (Monkey) = 2.39 mg/L  
NOAEC (Oral) Sperm = 1000 mg/kg bw/day

#### Developmental Toxicity:

NOAEC (Rat) = 1.33 mg/L  
LOAEL (Mouse) = 1700 mg/kg

**STOT - Single exposure:** This product causes organ damage (optic nerve, eyes, kidneys, liver, Central nervous system).

**STOT - Repeat exposure:** Does not meet the criteria for classification.



## Section 12 - Ecological Information

*Ecotoxicological information appears in this section when such data is available.*

This product is not expected to be harmful to the aquatic environment.

**Process of degradability:** Process = Oxygen depletion. Source = European Chemicals Agency,

<http://echa.europa.eu/>

<u>Degradation rate</u>	<u>Time</u>
76%	5 d
88%	10 d
91%	15 d
95%	20 d
69%	5 d
84%	10 d
85%	15 d
97%	20 d

**Bioaccumulative potential:**

n-octanol/water (log KOW) = -0.77 (ECHA)

BCF = <10 (<10)

**Mobility in soil:**

Henry's law constant = 0.461 Pa m<sup>3</sup>/mol @ 25 C

The Organic Carbon normalized adsorption coefficient = 0.13 - 1

**Results of PBT and vPvB assessment:** This substance is not considered to be persistent, bioaccumulating nor toxic (PBT)., This substance is not considered to be very persistent nor very bioaccumulating (vPvB).

**Other adverse effects:** None known

**Additional information:**

Biochemical Oxygen Demand (BOD): 600 - 1,120 mg/g

Chemical Oxygen Demand (COD): 1,420 mg/g

**Component Ecotoxicity**

Methyl alcohol	96 Hr LC50 <i>Lepomis macrochirus</i> (Bluegill): 15,400 mg/L
	200 Hr NOEC <i>Oryzias latipes</i> : 7,900 mg/l
	48 Hr EC50 <i>Daphnia magna</i> (Water flea): > 10,000 mg/l
	96 Hr Growth inhibition EC50 <i>Scenedesmus capricornutum</i> (algae): 22,000 mg/l
	96 Hr ErC50 Algae: 22,000 mg/L
	24 Hr LC50 microorganisms: >880 mg/L

## Section 13 - Disposal Considerations

As the US EPA, state, regional, and other regulatory agencies may have jurisdiction over the disposal of your facility's hazardous waste, it is incumbent upon you, the hazardous waste generator, to learn of and satisfy all the requirements which affect you. Dispose of the hazardous waste at a properly licensed and permitted disposal site or facility. Ensure conformity to all applicable hazardous waste disposal regulations.

The US EPA Hazardous Waste Numbers which follow are applicable to this unadulterated product if the product enters the "waste stream." Refer to Title 40 of the Code of Federal Regulations, Part 261 (40 CFR 261). This part of the Code identifies solid wastes which are subject to regulation under various sections of the Code and which are subject to the notification requirements of Section 3010 of the Resource Conservation and Recovery Act (RCRA).



## Section 14 - Transport Information

This material is classified for transport as follows:

Reportable Quantity (RQ): 5000 lbs / 2270 kg.

Package sizes shipped in quantities less than the product reportable quantity are not subject to the RQ.

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
DOT	Methanol	UN 1230	PG II	3

## Section 15 - Regulatory Information

Additional regulatory listings, where applicable.

**Toxic Substances Control Act (TSCA):** All components in this product are in compliance with the TSCA Inventory requirements.

**Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA).** This product contains a chemical or chemicals which are subject to the reporting requirements of the Act, and Title 40 of the Code of Federal Regulations, part 372.

## Section 16 - Other Information

This Safety Data Sheet conforms to ANSI Z400.5, and to the format requirements and the International Chemical Safety Cards of the Global Harmonizing System. THIS SDS COMPLIES WITH 29 CFR 1910.1200 (HAZARD COMMUNICATION STANDARD) IMPORTANT: Read this SDS before handling & disposing of this product. Pass this information on to employees, customers, & users of this product.

**EMPLOYEE TRAINING:** See Section 2 for Risk & Safety Statements. Employees should be made aware of all hazards of this material (as stated in this SDS) before handling it.

The supplier disclaims all expressed or implied warranties of merchantability or fitness for a specific use, with respect to the product or the information provided herein, except for conformation to contracted specifications. All information appearing herein is based upon data obtained from manufacturers and/or recognized technical sources. While the information is believed to be accurate, we make no representations as to its accuracy or sufficiency. Conditions of use are beyond our control, and therefore users are responsible for verifying the data under their own operating conditions to determine whether the product is suitable for their particular purposes and they assume all risks of their handling and disposal of the product. Users also assume all risks in regards to the publication or use of, or reliance upon information contained herein. This information relates only to the product designated herein, and does not relate to its use in combination with any other material or process.

Date revised: 2020-04-14

Reviewer Revision 1

Date Prepared: 4/14/2020

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