

1. Identification

Product identifier WATERMARK® KARL FISCHER COULOMETRIC VESSEL SOLUTION for OILS

Other means of identification

Product code 5202

Recommended use Laboratory reagent for water determination using the Karl Fischer method.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name GFS Chemicals, Inc.
Address 800 Kaderly Drive
 Columbus, OH 43228
 United States

Telephone Phone 740-881-5501
 Toll Free 800-858-9682
 Fax 740-881-5989

Website www.gfschemicals.com

E-mail service@gfschemicals.com

Emergency phone number Emergency Assistance Chemtrec 800-424-9300

Supplier Not available.

2. Hazard identification

Physical hazards	Flammable liquids	Category 2
	Physical hazards not otherwise classified	Category 1
Health hazards	Acute toxicity, oral	Category 3
	Acute toxicity, dermal	Category 3
	Acute toxicity, inhalation	Category 3
	Skin corrosion/irritation	Category 2
	Serious eye damage/eye irritation	Category 2A
	Carcinogenicity	Category 2
	Reproductive toxicity	Category 1
	Specific target organ toxicity, single exposure	Category 1
	Specific target organ toxicity, single exposure	Category 3 narcotic effects
	Specific target organ toxicity, repeated exposure	Category 1
	Aspiration hazard	Category 1
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 2
	Hazardous to the aquatic environment, long-term hazard	Category 3

Label elements



Signal word Danger

Hazard statement

Highly flammable liquid and vapor. Toxic if swallowed. Toxic in contact with skin. Static accumulating flammable liquid can become electrostatically charged even in bonded and grounded equipment. Sparks may ignite liquid and vapor. May cause flash fire or explosion. Toxic if inhaled. May be fatal if swallowed and enters airways. Causes skin irritation. Causes serious eye irritation. Causes damage to organs. Causes damage to organs through prolonged or repeated exposure. May cause drowsiness or dizziness. Suspected of causing cancer. May damage fertility or the unborn child. Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Precautionary statement**Prevention**

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Use explosion-proof electrical/ventilating/lighting equipment. Keep container tightly closed. Ground and bond container and receiving equipment. These alone may be insufficient to remove static electricity. Use non-sparking tools. Take action to prevent static discharges. Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection. Avoid breathing mist/vapor. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear eye protection/face protection.

Response

IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth. If skin irritation occurs: Get medical advice/attention. Take off immediately all contaminated clothing and wash it before reuse. In case of fire: Use appropriate media to extinguish. If eye irritation persists: Get medical advice/attention. In case of leakage, eliminate all ignition sources.

Storage

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

Disposal

Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

Other hazards

None known.

Supplemental information

3-5% of the mixture consists of component(s) of unknown acute oral toxicity. 40-65% of the mixture consists of component(s) of unknown acute dermal toxicity. 30-55% of the mixture consists of component(s) of unknown acute hazards to the aquatic environment. 30-55% of the mixture consists of component(s) of unknown long-term hazards to the aquatic environment.

3. Composition/information on ingredients**Mixtures**

Chemical name	Common name and synonyms	CAS number	%
CHLOROFORM	TRICHLOROMETHANE	67-66-3	30 - < 40
METHYL ALCOHOL	WOOD ALCOHOL METHANOL	67-56-1	20 - < 30
XYLENES		1330-20-7	10 - < 20
ETHYLBENZENE		100-41-4	3 - < 5
SULFUR DIOXIDE		7446-09-5	3 - < 5
Other components below reportable levels			10 - < 20

All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First-aid measures**Inhalation**

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a poison center or doctor/physician. Call a poison center or doctor/physician if you feel unwell. Call a physician if symptoms develop or persist.

Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical advice/attention if you feel unwell. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Give large quantities of water and induce vomiting. Seek medical attention.
Most important symptoms/effects, acute and delayed	Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain. Prolonged exposure may cause chronic effects.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Thermal burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Take off immediately all contaminated clothing. IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media	Alcohol resistant foam. Water fog. Carbon dioxide (CO ₂). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	Vapors may form explosive mixtures with air. Vapors may travel considerable distance to a source of ignition and flash back. This product is a poor conductor of electricity and can become electrostatically charged. If sufficient charge is accumulated, ignition of flammable mixtures can occur. To reduce potential for static discharge, use proper bonding and grounding procedures. This liquid may accumulate static electricity when filling properly grounded containers. Static electricity accumulation may be significantly increased by the presence of small quantities of water or other contaminants. Material will float and may ignite on surface of water. During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	Highly flammable liquid and vapor. Emits toxic fumes under fire conditions.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Avoid breathing mist/vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Use appropriate containment to avoid environmental contamination. Transfer by mechanical means such as vacuum truck to a salvage tank or other suitable container for recovery or safe disposal. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
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Methods and materials for containment and cleaning up

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area).

Large Spills: Keep combustibles (wood, paper, oil, etc.) away from spilled material. Stop leak if you can do so without risk. Take precautionary measures against static discharge. Use only non-sparking tools. Dike the spilled material, where this is possible. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. The product is immiscible with water and will spread on the water surface. Should not be released into the environment. Clean up in accordance with all applicable regulations. Prevent entry into waterways, sewer, basements or confined areas. Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. Put material in suitable, covered, labeled containers. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid release to the environment. Prevent further leakage or spillage if safe to do so. Inform appropriate managerial or supervisory personnel of all environmental releases. Avoid discharge into drains, water courses or onto the ground. Use appropriate containment to avoid environmental contamination.

7. Handling and storage

Precautions for safe handling

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Explosion-proof general and local exhaust ventilation. Minimize fire risks from flammable and combustible materials (including combustible dust and static accumulating liquids) or dangerous reactions with incompatible materials. Handling operations that can promote accumulation of static charges include but are not limited to: mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations. Take precautionary measures against static discharges. All equipment used when handling the product must be grounded. Use non-sparking tools and explosion-proof equipment. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. When using, do not eat, drink or smoke. Pregnant or breastfeeding women must not handle this product. Avoid breathing mist/vapor. Wear appropriate personal protective equipment. Avoid prolonged exposure. Wash hands thoroughly after handling. Should be handled in closed systems, if possible. Observe good industrial hygiene practices. Avoid release to the environment. Wash contaminated clothing before reuse.

For additional information on equipment bonding and grounding, refer to the Canadian Electrical Code in Canada, (CSA C22.1), or the American Petroleum Institute (API) Recommended Practice 2003, "Protection Against Ignitions Arising out of Static, Lightning, and Stray Currents" or National Fire Protection Association (NFPA) 77, "Recommended Practice on Static Electricity" or National Fire Protection Association (NFPA) 70, "National Electrical Code".

Conditions for safe storage, including any incompatibilities

Store locked up. Keep away from heat, sparks and open flame. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a cool, dry place out of direct sunlight. Store in original tightly closed container. Store in tightly closed container. Store in a well-ventilated place. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the SDS). Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. ACGIH Threshold Limit Values Components

Components	Type	Value
CHLOROFORM (CAS 67-66-3)	TWA	10 ppm
ETHYLBENZENE (CAS 100-41-4)	TWA	20 ppm

US. ACGIH Threshold Limit Values

Components	Type	Value
METHYL ALCOHOL (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm
SULFUR DIOXIDE (CAS 7446-09-5)	STEL	0.25 ppm
XYLENES (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
CHLOROFORM (CAS 67-66-3)	TWA	49 mg/m ³
		10 ppm
ETHYLBENZENE (CAS 100-41-4)	STEL	543 mg/m ³
		125 ppm
	TWA	434 mg/m ³
METHYL ALCOHOL (CAS 67-56-1)	STEL	100 ppm
		328 mg/m ³
	TWA	250 ppm
SULFUR DIOXIDE (CAS 7446-09-5)	STEL	262 mg/m ³
		200 ppm
	TWA	13 mg/m ³
XYLENES (CAS 1330-20-7)	STEL	5 ppm
		5.2 mg/m ³
	TWA	2 ppm
	STEL	651 mg/m ³
		150 ppm
	TWA	434 mg/m ³
		100 ppm

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	Type	Value
CHLOROFORM (CAS 67-66-3)	TWA	2 ppm
ETHYLBENZENE (CAS 100-41-4)	TWA	20 ppm
METHYL ALCOHOL (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm
SULFUR DIOXIDE (CAS 7446-09-5)	STEL	5 ppm
	TWA	2 ppm
XYLENES (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value
CHLOROFORM (CAS 67-66-3)	TWA	10 ppm
ETHYLBENZENE (CAS 100-41-4)	TWA	20 ppm
METHYL ALCOHOL (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm
SULFUR DIOXIDE (CAS 7446-09-5)	STEL	0.25 ppm
XYLENES (CAS 1330-20-7)	STEL	150 ppm
	TWA	100 ppm

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
CHLOROFORM (CAS 67-66-3)	TWA	10 ppm
ETHYLBENZENE (CAS 100-41-4)	TWA	20 ppm
METHYL ALCOHOL (CAS 67-56-1)	STEL	250 ppm
	TWA	200 ppm
SULFUR DIOXIDE (CAS 7446-09-5)	STEL	10.4 mg/m3
		5 ppm
	TWA	5.2 mg/m3
XYLENES (CAS 1330-20-7)		2 ppm
	STEL	150 ppm
	TWA	100 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value
CHLOROFORM (CAS 67-66-3)	TWA	24.4 mg/m3
		5 ppm
ETHYLBENZENE (CAS 100-41-4)	STEL	543 mg/m3
		125 ppm
	TWA	434 mg/m3
METHYL ALCOHOL (CAS 67-56-1)		100 ppm
	STEL	328 mg/m3
	TWA	250 ppm
SULFUR DIOXIDE (CAS 7446-09-5)		262 mg/m3
	STEL	200 ppm
	TWA	13 mg/m3
XYLENES (CAS 1330-20-7)		5 ppm
	STEL	5.2 mg/m3
		2 ppm
		651 mg/m3
		150 ppm

Canada. Quebec OELs. (Ministry of Labor - Regulation respecting occupational health and safety)

Components	Type	Value
	TWA	434 mg/m ³ 100 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
ETHYLBENZENE (CAS 100-41-4)	0.15 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*
METHYL ALCOHOL (CAS 67-56-1)	15 mg/l	Methanol	Urine	*
XYLENES (CAS 1330-20-7)	1.5 g/g	Methylhippuric acids	Creatinine in urine	*

* - For sampling details, please see the source document.

Exposure guidelines

Canada - Alberta OELs: Skin designation

METHYL ALCOHOL (CAS 67-56-1)

Can be absorbed through the skin.

Canada - British Columbia OELs: Skin designation

METHYL ALCOHOL (CAS 67-56-1)

Can be absorbed through the skin.

Canada - Manitoba OELs: Skin designation

METHYL ALCOHOL (CAS 67-56-1)

Can be absorbed through the skin.

Canada - Ontario OELs: Skin designation

METHYL ALCOHOL (CAS 67-56-1)

Can be absorbed through the skin.

Canada - Quebec OELs: Skin designation

METHYL ALCOHOL (CAS 67-56-1)

Can be absorbed through the skin.

Canada - Saskatchewan OELs: Skin designation

METHYL ALCOHOL (CAS 67-56-1)

Can be absorbed through the skin.

US ACGIH Threshold Limit Values: Skin designation

METHYL ALCOHOL (CAS 67-56-1)

Can be absorbed through the skin.

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Provide eyewash station. Provide eyewash station and safety shower.

Individual protection measures, such as personal protective equipment

Eye/face protection

Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove supplier.

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. Chemical respirator with organic vapor cartridge.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Observe any medical surveillance requirements. When using do not smoke. Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance	Clear.
Physical state	Liquid.
Form	Liquid.
Color	Colorless to light brown.
Odor	Characteristic.
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	-34 °F (-37 °C) estimated
Initial boiling point and boiling range	141.8 °F (61 °C)
Flash point	51.8 °F (11.0 °C) estimated
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	6 % estimated
Flammability limit - upper (%)	30 % estimated
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	138 hPa estimated
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Not miscible.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	725 °F (385 °C) estimated
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Density	1.20 g/cm ³
Explosive properties	Not explosive.
Flammability class	Flammable IB estimated
Flash point class	Flammable IB
Oxidizing properties	Not oxidizing.
Percent volatile	75 % estimated
Specific gravity	1.2
VOC	75 % estimated

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Stable at normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Avoid heat, sparks, open flames and other ignition sources. Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong acids. Strong oxidizing agents. Halogens.

Hazardous decomposition products Hydrogen chloride. Carbon dioxide, carbon monoxide, oxides of sulfur and nitrogen.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Toxic if inhaled. May cause damage to organs by inhalation. May cause drowsiness and dizziness. Headache. Nausea, vomiting.
Skin contact	Toxic in contact with skin. Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Toxic if swallowed. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia.

Symptoms related to the physical, chemical and toxicological characteristics Aspiration may cause pulmonary edema and pneumonitis. May cause drowsiness and dizziness. Headache. Nausea, vomiting. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity May be fatal if swallowed and enters airways. Toxic if inhaled. Toxic in contact with skin.

Product	Species	Test Results
WATERMARK® KARL FISCHER COULOMETRIC VESSEL SOLUTION for OILS		
Acute		
Inhalation		
LC50	Guinea pig	16140 mg/l
	Mouse	7265 mg/l
	Rat	147 mg/l
LCL0	Rat	26670 mg/l
Oral		
LD50	Dog	6988 mg/kg
	Mouse	111 mg/kg
	Rabbit	29270 mg/kg
Components		
CHLOROFORM (CAS 67-66-3)		
Acute		
Inhalation		
LC50	Rat	47.7 mg/l, 4 Hours
Oral		
LD50	Dog	2250 mg/kg
	Mouse	36 mg/kg
	Rabbit	9827 mg/kg
	Rat	2180 mg/kg
		1117 mg/kg
		908 mg/kg
ETHYLBENZENE (CAS 100-41-4)		
Acute		
Dermal		
LD50	Rabbit	17800 mg/kg
Oral		
LD50	Rat	3500 mg/kg
METHYL ALCOHOL (CAS 67-56-1)		
Acute		
Dermal		
LD50	Rabbit	15800 mg/kg

Components	Species	Test Results
Inhalation		
LC50	Rat	87.5 mg/l, 6 Hours
Oral		
LD50	Rat	5628 mg/kg
SULFUR DIOXIDE (CAS 7446-09-5)		
Acute		
Inhalation		
LC50	Guinea pig	1000 ppm, 20 Hours 1000 mg/l, 20 Hours 130 ppm, 154 Hours 130 mg/l, 154 Hours
	Mouse	1000 ppm, 4 Hours 1000 mg/l, 4 Hours 150 ppm, 847 Hours 150 mg/l, 847 Hours
XYLENES (CAS 1330-20-7)		
Acute		
Dermal		
LD50	Rabbit	> 43 g/kg
Inhalation		
LC50	Mouse	3907 mg/l, 6 h
	Rat	6350 mg/l, 4 h
LCL0	Rat	8000 mg/l, 4 h
Oral		
LD50	Mouse	5627 mg/kg 1590 mg/kg
	Rat	3523 - 8600 mg/kg 6670 mg/kg 4300 mg/kg 3523 - 8600 mg/kg
Skin corrosion/irritation	Causes skin irritation.	
Serious eye damage/eye irritation	Causes serious eye irritation.	
Respiratory or skin sensitization		
Canada - Alberta OELs: Irritant		
SULFUR DIOXIDE (CAS 7446-09-5)	Irritant	
Respiratory sensitization	Not a respiratory sensitizer.	
Skin sensitization	This product is not expected to cause skin sensitization.	
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
Carcinogenicity	Suspected of causing cancer.	
ACGIH Carcinogens		
CHLOROFORM (CAS 67-66-3)	A3 Confirmed animal carcinogen with unknown relevance to humans.	
ETHYLBENZENE (CAS 100-41-4)	A3 Confirmed animal carcinogen with unknown relevance to humans.	
SULFUR DIOXIDE (CAS 7446-09-5)	A4 Not classifiable as a human carcinogen.	
XYLENES (CAS 1330-20-7)	A4 Not classifiable as a human carcinogen.	

Canada - Manitoba OELs: carcinogenicity

CHLOROFORM (CAS 67-66-3)	Confirmed animal carcinogen with unknown relevance to humans.
ETHYLBENZENE (CAS 100-41-4)	Confirmed animal carcinogen with unknown relevance to humans.
SULFUR DIOXIDE (CAS 7446-09-5)	Not classifiable as a human carcinogen.
XYLENES (CAS 1330-20-7)	Not classifiable as a human carcinogen.

Canada - Quebec OELs: Carcinogen category

CHLOROFORM (CAS 67-66-3)	Suspected carcinogenic effect in humans.
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IARC Monographs. Overall Evaluation of Carcinogenicity

CHLOROFORM (CAS 67-66-3)	2B Possibly carcinogenic to humans.
ETHYLBENZENE (CAS 100-41-4)	2B Possibly carcinogenic to humans.
SULFUR DIOXIDE (CAS 7446-09-5)	3 Not classifiable as to carcinogenicity to humans.
XYLENES (CAS 1330-20-7)	3 Not classifiable as to carcinogenicity to humans.

US. National Toxicology Program (NTP) Report on Carcinogens

CHLOROFORM (CAS 67-66-3)	Reasonably Anticipated to be a Human Carcinogen.
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Reproductive toxicity	Components in this product have been shown to cause birth defects and reproductive disorders in laboratory animals. May damage fertility or the unborn child.
Specific target organ toxicity - single exposure	Causes damage to organs. May cause drowsiness and dizziness.
Specific target organ toxicity - repeated exposure	Causes damage to organs through prolonged or repeated exposure.
Aspiration hazard	May be fatal if swallowed and enters airways.
Chronic effects	Causes damage to organs through prolonged or repeated exposure. Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects.

12. Ecological information

Ecotoxicity Toxic to aquatic life. Harmful to aquatic life with long lasting effects.

Product	Species	Test Results	
WATERMARK® KARL FISCHER COULOMETRIC VESSEL SOLUTION for OILS			
Aquatic			
Crustacea	EC50	Daphnia	98.4663 mg/l, 48 hours estimated
Fish	LC50	Fish	60.9081 mg/l, 96 hours estimated
Components			
CHLOROFORM (CAS 67-66-3)			
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	15.1 mg/l, 96 hours
ETHYLBENZENE (CAS 100-41-4)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.37 - 4.4 mg/l, 48 hours
Fish	LC50	Fathead minnow (Pimephales promelas)	7.5 - 11 mg/l, 96 hours
METHYL ALCOHOL (CAS 67-56-1)			
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	> 10000 mg/l, 48 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	13500 - 17600 mg/l, 96 hours
XYLENES (CAS 1330-20-7)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	7.711 - 9.591 mg/l, 96 hours

Persistence and degradability None known.

Bioaccumulative potential

Partition coefficient n-octanol / water (log Kow)	
CHLOROFORM	1.97
ETHYLBENZENE	3.15
METHYL ALCOHOL	-0.77

Partition coefficient n-octanol / water (log Kow)

XYLENES

3.12 - 3.2

Mobility in soil

No data available.

Other adverse effects

The product contains volatile organic compounds which have a photochemical ozone creation potential.

13. Disposal considerations**Disposal instructions**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

Waste from residues / unused products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information**TDG****UN number**

UN1993

UN proper shipping name

FLAMMABLE LIQUID, N.O.S. (METHYL ALCOHOL, XYLENES)

Transport hazard class(es)**Class**

3

Subsidiary risk

-

Packing group

II

Environmental hazards

Not available.

Special precautions for user

Read safety instructions, SDS and emergency procedures before handling.

IATA**UN number**

UN1993

UN proper shipping name

Flammable liquid, n.o.s. (METHYL ALCOHOL, XYLENES)

Transport hazard class(es)**Class**

3

Subsidiary risk

-

Packing group

II

Environmental hazards

No.

ERG Code

3H

Special precautions for user

Read safety instructions, SDS and emergency procedures before handling.

Other information**Passenger and cargo aircraft**

Allowed with restrictions.

Cargo aircraft only

Allowed with restrictions.

IMDG**UN number**

UN1993

UN proper shipping name

FLAMMABLE LIQUID, N.O.S. (METHYL ALCOHOL, XYLENES)

Transport hazard class(es)**Class**

3

Subsidiary risk

-

Packing group

II

Environmental hazards**Marine pollutant**

No.

EmS

F-E, S-E

Special precautions for user

Read safety instructions, SDS and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not established.

IATA; IMDG; TDG



15. Regulatory information

Canadian regulations This product has been classified in accordance with the hazard criteria of the HPR and the SDS contains all the information required by the HPR.

Controlled Drugs and Substances Act

Not regulated.

Export Control List (CEPA 1999, Schedule 3)

Not listed.

Greenhouse Gases

Not listed.

Ontario. Toxic Substances. Toxic Reduction Act, 2009. Regulation 455/09 (July 1, 2011)

ETHYLBENZENE (CAS 100-41-4)

METHYL ALCOHOL (CAS 67-56-1)

XYLENES (CAS 1330-20-7)

Precursor Control Regulations

Not regulated.

International regulations

Stockholm Convention

Not applicable.

Rotterdam Convention

Not applicable.

Kyoto protocol

Not applicable.

Montreal Protocol

Not applicable.

Basel Convention

Not applicable.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes

Country(s) or region	Inventory name	On inventory (yes/no)*
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
Taiwan	Taiwan Chemical Substance Inventory (TCSI)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information

Issue date December-28-2016

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Version # 02

Disclaimer GFS Chemicals, Inc. cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information in the sheet was written based on the best knowledge and experience currently available.

Revision information This document has undergone significant changes and should be reviewed in its entirety.