

# Safety Data Sheet

Version 1.4

Revision Date 3/17/2017

## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **WaveTrace™ Coulometric CGR Karl Fischer reagent**

Product number: 13060

Supplier: Quveon, Inc.  
351 E Alondra Blvd, Building B  
Gardena, CA 90248  
USA

Telephone: 1 800 471 3575  
Fax: 1 213 283 3909

Emergency Phone # 1 800 424 9300 (CCN812765)

## 2. HAZARDS IDENTIFICATION

### Emergency Overview

#### OSHA Hazards

Flammable liquid, Irritant, Target Organ Effect, Toxic by inhalation, Toxic by ingestion, Toxic by skin absorption, Carcinogen, Teratogen

#### Target Organs

Eyes, Kidney, Liver, Heart, Central nervous system, Blood

#### GHS Classification

Flammable liquids (Category 2)  
Acute toxicity, Oral (Category 3)  
Acute toxicity, Inhalation (Category 3)  
Acute toxicity, Dermal (Category 3)  
Serious eye damage (Category 1)  
Reproductive toxicity (Category 1B)  
Specific target organ toxicity - single exposure (Category 1)  
Specific target organ toxicity - repeated exposure (Category 2)

#### GHS Label elements, including precautionary statements

Pictogram



Signal word	Danger
Hazard statement(s)	
H225	Highly flammable liquid and vapor.
H301 + H311 + H331	Toxic if swallowed, in contact with skin or inhaled.
H318	Causes serious eye damage.
H360D	May damage the unborn child.
H370	Causes damage to organs.
H373	May cause damage to organs through prolonged or repeated exposure.
Precautionary statement(s)	
P201	Obtain special instructions before use.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P280	Wear protective gloves/eye protection/face protection.
P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P307 + P311	IF exposed: Call a POISON CENTER or doctor/physician.

#### HMIS Classification

Health hazard	3
Chronic health hazard *	
Flammability	3
Physical hazards	3

#### NFPA Rating

Health hazard	3
Fire	3
Reactivity hazard	0

#### Potential Health Effects

Inhalation	Toxic if inhaled. Causes respiratory tract irritation.
Skin	Toxic if absorbed through skin. Causes skin irritation.
Eyes	Causes eye irritation
Ingestion	Toxic if swallowed

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Hazardous	Concentration
Methanol	67-56-1	Yes	70 – 90 %
Imidazole	288-32-4	Yes	10 – 30 %
Sulfur Dioxide	7446-09-5	Yes	10 – 30 %
1H-Imidazole, monohydroiodide	68007-08-9	Yes	5 – 10 %

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### 4. FIRST AID MEASURES

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

**If inhaled**

If breathed in, move the person to fresh air. If not breathing, give artificial respiration. Consult a physician.

**In case of skin contact**

Wash off with soap and plenty of water. Take the victim to hospital. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

**If swallowed**

Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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**5. FIREFIGHTING MEASURES****Conditions of flammability**

Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

**Suitable extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Special protective equipment for firefighters**

Wear self-contained breathing apparatus if necessary.

**Hazardous combustion products**

Hazardous decomposition products formed under fire conditions include carbon oxides, nitrogen oxides, sulfur oxides, hydrogen iodide, hydrogen cyanide (hydrocyanic acid).

**Additional information**

Use water spray to cool unopened containers

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**6. ACCIDENTAL RELEASE MEASURES****Personal precautions**

Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapors accumulating to form explosive concentrations. Vapors can accumulate in low areas.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

**Methods and materials for containment and cleaning up**

Contain spillage and collect with an electrically protected vacuum cleaner or by wet-brushing and place in a container for disposal according to local regulations.

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**7. HANDLING AND STORAGE****Precautions for safe handling**

Avoid contact with skin and eyes. Avoid inhalation of vapor or mist. Use explosion-proof electrical equipment. Keep away from all sources of ignition. No smoking. Take measures to prevent the buildup of an electrostatic charge.

### Conditions for safe storage

Keep container tightly closed in a dry and well-ventilated location. Opened containers must be carefully resealed and kept upright to prevent leakage.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Component	Exposure limits
<b>Methanol</b>	<b>ACGIH TLV (United States, 2/2010). Absorbed through skin.</b> TWA: 200 ppm 8 hour(s) TWA: 262 mg/m <sup>3</sup> 8 hour(s) STEL: 250 ppm 15 minute(s) STEL: 328 mg/ m <sup>3</sup> 15 minute(s) <b>OSHA PEL 1989 (United States, 3/1989). Absorbed through skin</b> TWA: 200 ppm 8 hour(s) TWA: 260 mg/ m <sup>3</sup> 8 hour(s) STEL: 250 ppm 15 minute(s) STEL: 325 mg/ m <sup>3</sup> 15 minute(s) <b>NIOSH REL (United States, 6/2009). Absorbed through skin</b> TWA: 200 ppm 10 hour(s) TWA: 260 mg/ m <sup>3</sup> 10 hour(s) STEL: 250 ppm 15 minute(s) STEL: 325 mg/ m <sup>3</sup> 15 minute(s) <b>OSHA PEL (United States, 11/2006)</b> TWA: 200 ppm 8 hour(s) TWA: 260 mg/ m <sup>3</sup> 8 hour(s)
<b>Sulfur Dioxide</b>	<b>ACGIH TLV (United States, 2/2010)</b> STEL: 0.25 ppm 15 minute(s) <b>NIOSH REL (United States, 6/2009)</b> TWA: 2 ppm 10 hour(s) TWA: 5 mg/ m <sup>3</sup> 10 hour(s) STEL: 5 ppm 15 minutes STEL: 13 mg/ m <sup>3</sup> 15 minute(s) <b>OSHA PEL (United States, 11/2006)</b> TWA: 5 ppm 8 hour(s) TWA: 13 mg/ m <sup>3</sup> 8 hour(s) <b>OSHA PEL 1989 (United States, 3/1989)</b> TWA: 2 ppm 8 hour(s) TWA: 5 mg/ m <sup>3</sup> 8 hour(s) STEL: 5 ppm 15 minute(s) STEL: 10 mg/ m <sup>3</sup> 15 minute(s)

### 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.

### Personal protective equipment

**Respiratory protection.** Where risk assessment shows air purifying respirators are appropriate, use a full-face respirator with multi-purpose combination (US) or type AXBEK (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).

**Hand protection.** Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with the product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

**Eye protection.** Tightly fitting safety goggles. Face shield. Use equipment for eye protection tested and approved under appropriate government standards.

**Skin and body protection.** Complete suit protecting against chemicals, flame retardant antistatic protective clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hygiene measures.**

Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### Appearance

Form	liquid
Color	colorless or with light yellow color
pH	5.0 – 6.0 at 20 C (68 F)
Melting point	no data available
Boiling point	63 C (145 F) at 1013 hPa (760 mmHg)
Flash point	14 C (57 F) – closed cup
Ignition temperature	no data available
Autoignition temperature	no data available
Density	0.930 g/cm <sup>3</sup>
Water solubility	no data available

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## 10. STABILITY AND REACTIVITY

### Chemical stability

Stable under recommended storage conditions

### Possibility of hazardous reactions

Vapors may form explosive mixture with air

### Conditions to avoid

Heat, flames and sparks. Extremes of temperature and direct sunlight

### Materials to avoid

Zinc, Acids, Oxidizing agents, Alkali metals, Iron, Copper, Acid chlorides, Acid anhydrides, Reducing agents, Acids

### Hazardous decomposition products

Decomposition products under recommended storage conditions – no data available

Hazardous decomposition products formed under fire conditions – carbon oxides, nitrogen oxides, sulfur oxides, hydrogen iodide, hydrogen cyanide (hydrocyanic acid)

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## 11. TOXICOLOGICAL INFORMATION

### Acute toxicity

#### Oral LD50

LD50 Oral – rat – 2000 mg/kg

**Inhalation LC50**

No data available

**Other information on acute toxicity**

No data available

**Serious eye damage/eye irritation**

Eyes – rabbit – Risk of serious damage to eyes

**Respiratory or skin sensitization**

No data available

**Carcinogenicity**

IARC: 3 – Group 3: Not classifiable as to its carcinogenicity to humans (Diethanolamine)

IARC: 3 – Group 3: Not classifiable as to its carcinogenicity to humans (Sulfur dioxide)

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA

**Reproductive toxicity**

No data available

**Teratogenicity**

No data available

**Specific target organ toxicity – single exposure (Globally Harmonized System)**

No data available

**Specific target organ toxicity – repeated exposure (Globally Harmonized System)**

May cause damage to organs through prolonged or repeated exposure

**Aspiration hazard**

No data available

**Potential health effects**

<b>Inhalation</b>	Toxic if inhaled. Causes respiratory tract irritation
<b>Ingestion</b>	Toxic if swallowed
<b>Skin</b>	Toxic if absorbed through skin. Causes skin irritation
<b>Eyes</b>	Causes eye irritation

**Signs and symptoms of exposure**

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

**Synergistic effects**

No data available

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**12. ECOLOGICAL INFORMATION****Ecotoxicity**

Data not available

**BOD5 and COD:**

Data not available

**Products of Biodegradation**

Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

**Toxicity of the Products of Biodegradation**

The products of biodegradation are as toxic as the original product

**13. DISPOSAL CONSIDERATIONS**

Reagent that cannot be saved for recovery and recycling should be handled as hazardous waste and sent to an RCRA-approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from the federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

**14. TRANSPORT INFORMATION****DOT (US)**

UN number: 1230 Class: 3 Packing group: II

Proper shipping name: Methanol, solution

Reportable quantity (RQ): 5000 lbs

Marine pollutant: No

Poison Inhalation Hazard: No

**IMDG**

UN number: 1230 Class: 3 (6.1) Packing group: II

Proper shipping name: METHANOL, SOLUTION

Marine pollutant: No

**IATA**

UN number: 1230 Class: 3 (6.1) Packing group: II

Proper shipping name: Methanol, solution

**15. REGULATORY INFORMATION****OSHA Hazards**

Flammable liquid, Irritant, Target Organ Effect, Toxic by inhalation, Toxic by ingestion, Toxic by skin absorption, Carcinogen, Teratogen

**SARA 302 Components**

The following components are subject to reporting levels established by SARA Title III, Section 302:

	CAS-No.	Revision Date
Sulfur dioxide	7446-09-5	2007-03-01

**SARA 313 Components**

The following components are subject to reporting levels established by SARA Title III, Section 313:

	CAS-No.	Revision Date
Methanol	67-56-1	2007-07-01

Diethanolamine

111-42-2

2007-07-01

**SARA 311/312 Hazards**

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**

	CAS-No.	Revision Date
Methanol	67-56-1	2007-07-01
Diethanolamine	111-42-2	2007-07-01
Sulfur dioxide	7446-09-5	2007-03-01

**Pennsylvania Right To Know Components**

	CAS-No.	Revision Date
Methanol	67-56-1	2007-07-01
Diethanolamine	111-42-2	2007-07-01
Imidazole	288-32-4	
Sulfur dioxide	7446-09-5	2007-03-01
1H-Imidazole, monohydroiodide	68007-08-9	

**California Prop. 65 Components**

WARNING! This product contains a chemical known to the State of California to cause cancer.

Diethanolamine	111-42-2	2012-07-20
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WARNING! This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Methanol	67-56-1	2012-03-16
Sulphur Dioxide	7446-09-5	2011-09-02

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**16. OTHER INFORMATION**

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