

# Safety Data Sheet

Version 1.8

Revision Date 3/17/2017

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## 1. PRODUCT AND COMPANY IDENTIFICATION

Product name: **WaveTrace™ Composit T2 Karl Fischer reagent**

Product number: 23336

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)

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## 2. HAZARDS IDENTIFICATION

### Emergency Overview

#### OSHA Hazards

Combustible liquid, Irritant, Target Organ Effect, Skin sensitizer, Teratogen

#### Target Organs

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

#### GHS Classification

Flammable liquids (Category 4)  
Acute toxicity, Oral (Category 5)  
Acute toxicity, Inhalation (Category 5)  
Acute toxicity, Dermal (Category 5)  
Reproductive toxicity (Category 1B)

#### GHS Label elements, including precautionary statements

Pictogram



Signal word

Warning/Danger

Hazard statement(s)

H227

Combustible liquid

H303 + H313                      May be harmful if swallowed or in contact with skin.  
H303 + H313 + H333              May be harmful if swallowed, in contact with skin or if inhaled.  
H360D                                  May damage the unborn child.

Precautionary statement(s)

P201                                  Obtain special instructions before use.  
P210                                  Keep away from heat/sparks/open flames/hot surfaces. No smoking.  
P280                                  Wear protective gloves/eye protection/face protection.  
P201                                  Obtain special instructions before use  
P312                                  Call a POISON CENTER or doctor/physician if you feel unwell.  
P370 + P378                        In case of a fire: Use water spray for extinction.  
P308 + P313                        IF exposed or concerned: Get medical advice/attention.  
P403 + P235                        Store in a well-ventilated place. Keep cool.  
P501                                  Dispose of contents/container to an approved waste disposal plant.

**HMIS Classification**

**Health hazard**                      2  
**Chronic health hazard** \*        2  
**Flammability**                      2  
**Physical hazards**                 0

**NFPA Rating**

**Health hazard**                      2  
**Fire**                                    2  
**Reactivity hazard**                0

**Potential Health Effects**

**Inhalation**                        May cause respiratory tract irritation. May be harmful if inhaled.  
**Skin**                                  May irritate skin. May cause allergic skin reaction. May be harmful if absorbed through skin. May cause skin irritation.  
**Eyes**                                May cause eye irritation.  
**Ingestion**                         May be harmful if swallowed.

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**3. COMPOSITION/INFORMATION ON INGREDIENTS**

Component	CAS Number	Hazardous	Concentration
Imidazole	288-32-4	Yes	10 – 20 %
Sulfur Dioxide	7446-09-5	Yes	5 – 20 %
Iodine	7553-56-2	Yes	1 – 5 %
2-(2-ethoxyethoxy)ethanol	111-90-0	No	60 – 90 %

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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. Consult a physician.

**In case of eye contact**

Rinse thoroughly with plenty of water.

**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/ 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 (NO<sub>x</sub>), 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 inhalation of vapor or mist. 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. Moisture sensitive.

## 8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Component	Exposure limits
2-(2-ethoxyethoxy)ethanol	<b>OSHA PEL (United States, 11/2006)</b> TWA: 100 ppm 8 hour(s) TWA: 740 mg/ m <sup>3</sup> 8 hour(s)
Iodine	<b>ACGIH TLV</b> TWA: 0.01 ppm STEL: 0.1 ppm <b>NIOSH REL</b> TWA: 0.01 ppm
Sulfur Dioxide	<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.

### 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 or safety glasses with side shields. Use equipment for eye protection tested and approved under appropriate government standards.

**Skin and body protection.** The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Hygiene measures.**

Handle according to good industrial hygiene and safety practices. Wash hands before breaks and immediately after handling the product.

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**9. PHYSICAL AND CHEMICAL PROPERTIES****Appearance**

Form	liquid
Color	dark brown
pH	5.0 – 6.0 at 20 C (68 F)
Melting point	no data available
Boiling point	202 C (395 F) at 1013 hPa (760 mmHg)
Flash point	92 C (197 F) – closed cup
Ignition temperature	no data available
Autoignition temperature	no data available
Water solubility	no data available

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**10. STABILITY AND REACTIVITY****Chemical stability**

Stable under recommended storage conditions.

**Possibility of hazardous reactions**

No data available

**Conditions to avoid**

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

**Materials to avoid**

Strong oxidizing agents

**Hazardous decomposition products**

Hazardous decomposition products formed under fire conditions – carbon oxides, nitrogen oxides (NO<sub>x</sub>), sulfur oxides, hydrogen iodide, hydrogen cyanide (hydrocyanic acid)

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**11. TOXICOLOGICAL INFORMATION****Acute toxicity****Oral LD50**

LD50 Oral – rat – 2125 mg/kg

**Inhalation LC50**

No data available

**Dermal LD50**

No data available

**Other information on acute toxicity**

No data available

**Skin corrosion/irritation**

Skin – rabbit – No skin irritation

**Serious eye damage/eye irritation**

Eyes – rabbit – No eye irritation

**Respiratory or skin sensitization**

No data available

**Germ cell mutagenicity**

No data available

**Carcinogenicity**

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, IARC, NTP or ACGIH.

**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)**

No data available

**Potential health effects**

<b>Inhalation</b>	May cause respiratory tract irritation. May be harmful if inhaled
<b>Ingestion</b>	May be harmful if swallowed
<b>Skin</b>	May irritate skin. May cause allergic skin reaction. May be harmful if absorbed through skin.
<b>Eyes</b>	May cause 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

No data available.

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### 13. DISPOSAL CONSIDERATIONS

Reagent that cannot be saved for recovery and recycling should be handled as hazardous waste and sent to an 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.

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### 14. TRANSPORT INFORMATION

#### DOT (US)

UN number: 3082 Class: 9 Packing group: III  
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (2-(2-ethoxyethoxy)ethanol)  
Reportable quantity (RQ): None  
Marine pollutant: No  
Poison Inhalation Hazard: No

#### IMDG

UN number: 3082 Class: 9 Packing group: III  
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (2-(2-ethoxyethoxy)ethanol)  
Reportable quantity (RQ): None  
Marine pollutant: No

#### IATA

UN number: 3082 Class: 9 Packing group: III  
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (2-(2-ethoxyethoxy)ethanol)  
Reportable quantity (RQ): None

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### 15. REGULATORY INFORMATION

#### OSHA Hazards

Combustible liquid, Target Organ Effect, Skin sensitizer, 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
2-(2-ethoxyethoxy)ethanol	111-90-0	1995-01-01

**SARA 311/312 Hazards**

Fire Hazard, Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**

	CAS-No.	Revision Date
Sulfur dioxide	7446-09-5	2007-03-01
Iodine	7553-56-2	2007-03-01

**Pennsylvania Right To Know Components**

	CAS-No.	Revision Date
2-(2-ethoxyethoxy)ethanol	111-90-0	1995-01-01
Imidazole	288-32-4	
Sulfur dioxide	7446-09-5	2007-03-01
Iodine	7553-56-2	2007-03-01

**New Jersey Right To Know Components**

	CAS-No.	Revision Date
2-(2-ethoxyethoxy)ethanol	111-90-0	1995-01-01
Imidazole	288-32-4	
Sulfur dioxide	7446-09-5	2007-03-01
Iodine	7553-56-2	2007-03-01

**California Prop. 65 Components**

This product does not contain any chemicals known to the State of California to cause cancer, birth defects, or any other reproductive harm.

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**16. OTHER INFORMATION**

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