

Safety Data Sheet

Version 1.8

Revision Date: June 2, 2023

1. PRODUCT AND COMPANY IDENTIFICATION

Product name:	WaveTrace™ Composit K2 Karl Fischer reagent
Product number:	31381
Supplier:	Quveon, Inc. 599 Raleigh Road Suite C Henderson, NC 27536 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

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 *
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.

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 %

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.

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_x), sulfur oxides, hydrogen iodide, hydrogen cyanide (hydrocyanic acid).

Additional information

Use water spray to cool unopened containers

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.

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	OSHA PEL (United States, 11/2006) TWA: 100 ppm 8 hour(s) TWA: 740 mg/ m ³ 8 hour(s)
Iodine	ACGIH TLV TWA: 0.01 ppm STEL: 0.1 ppm NIOSH REL TWA: 0.01 ppm
Sulfur Dioxide	ACGIH TLV (United States, 2/2010) STEL: 0.25 ppm 15 minute(s) NIOSH REL (United States, 6/2009) TWA: 2 ppm 10 hour(s) TWA: 5 mg/ m ³ 10 hour(s) STEL: 5 ppm 15 minutes STEL: 13 mg/ m ³ 15 minute(s) OSHA PEL (United States, 11/2006) TWA: 5 ppm 8 hour(s) TWA: 13 mg/ m ³ 8 hour(s) OSHA PEL 1989 (United States, 3/1989) TWA: 2 ppm 8 hour(s) TWA: 5 mg/ m ³ 8 hour(s) STEL: 5 ppm 15 minute(s) STEL: 10 mg/ m ³ 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.

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
Density	1.10 g/cm ³
Water solubility	no data available

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_x), sulfur oxides, hydrogen iodide, hydrogen cyanide (hydrocyanic acid)

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

No data available

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

Aspiration hazard

No data available

Potential health effects

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

12. ECOLOGICAL INFORMATION**Ecotoxicity**

Data not available

BOD5 and COD:

Data not available

Products of Biodegradation

No data available.

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.

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

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.

16. OTHER INFORMATION

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