

SAFETY DATA SHEET

1. Identification

Product identifier WATERMARK®, KARL FISCHER TITRANT, STABLE, 1 mg/ml, NON-HYGROSCOPIC

Other means of identification

Product code 1602

Recommended useLaboratory reagent for water determination using the Karl Fischer method.

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Company name GFS Chemicals, Inc. **Address** P.O. Box 245

Powell OH 43065 US

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 Emergency Assistance

number

2. Hazard(s) identification

Physical hazardsFlammable liquidsCategory 3Health hazardsAcute toxicity, dermalCategory 4Skin corrosion/irritationCategory 2

Serious eye damage/eye irritation Category 2A
Sensitization, skin Category 1
Carcinogenicity Category 2
Reproductive toxicity Category 1B

Specific target organ toxicity, single exposure Category 1 (central nervous system, kidney,

Chemtrec 800-424-9300

liver, respiratory system)

Specific target organ toxicity, single exposure Category 3 narcotic effects

Specific target organ toxicity, repeated Category 1 (nervous system, respiratory

exposure system, thyroid gland)

OSHA hazard(s) Not classified.

Label elements

Signal word Danger

Hazard statement Flammable liquid and vapor. Harmful in contact with skin. Causes skin irritation. May cause an

allergic skin reaction. Causes serious eye irritation. May cause drowsiness or dizziness. Suspected of causing cancer. May damage fertility or the unborn child. Causes damage to organs (central nervous system, kidney, liver, respiratory system). Causes damage to organs (nervous system, respiratory system, through prolonged or repeated exposure. Toxic to aquatic life.

Toxic to aquatic life with long lasting effects.

Material name: WATERMARK®, KARL FISCHER TITRANT, STABLE, 1 mg/ml, NON-HYGROSCOPIC

1602 Version #: 01 Revision date: Issue date: March-21-2014

1 / 11

Precautionary statement

Prevention

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Use only outdoors or in a well-ventilated area. Keep container tightly closed. Ground/bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe mist or vapor. Wash thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing must not be allowed out of the workplace. Wear protective gloves/protective clothing/eye protection/face protection.

Response

Eliminate all ignition sources if safe to do so. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. 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 exposed or concerned: Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. In case of fire: Use appropriate media for extinction.

Storage

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

cool. Store locked up.

Disposal

Dispose of contents/container to an approved incineration plant.

Hazard(s) not otherwise classified (HNOC)

Static accumulating flammable liquid

Environmental hazards

Hazardous to the aquatic environment, acute Category 2

hazard

Hazardous to the aquatic environment,

Category 2

long-term hazard

Supplemental information

Hazard statement

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.

Precautionary statement

Prevention

Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Ground/bond container and receiving equipment. These alone may be insufficient to remove static electricity. Avoid release to

the environment.

Response

Collect spillage.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Mixtures

Hazardous components

Chemical name	CAS number	
XYLENES	1330-20-7	>80
ETHYLBENZENE	100-41-4	17 - 18
IODINE	7553-56-2	<2.2

^{*}Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation Move to fresh air. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contactTake off immediately all contaminated clothing. Wash off with soap and plenty of water. Call a

POISON CENTER or doctor/physician if you feel unwell. For minor skin contact, avoid spreading material on unaffected skin. If skin irritation or rash occurs: Get medical advice/attention.

Eye contact Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.

Continue rinsing. Get medical attention if irritation develops and persists.

Ingestion Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.

Most important

symptoms/effects, acute and

delayed

Irritation of eyes and mucous membranes. May cause allergic skin reaction. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Narcosis. Decrease in motor functions. Behavioral changes. Edema. Liver enlargement. Jaundice. Proteinuria. Irritant effects. Prolonged exposure may cause chronic effects.

Indication of immediate medical attention and special

Keep victim under observation. Symptoms may be delayed. Provide general supportive measures

medical attention and special and treat symptomatically. treatment needed

Material name: WATERMARK®, KARL FISCHER TITRANT, STABLE, 1 mg/ml, NON-HYGROSCOPIC

1602 Version #: 01 Revision date: Issue date: March-21-2014

2 / 11

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. IF exposed or concerned: Get medical advice/attention. Wash contaminated clothing before reuse.

5. Fire-fighting measures

Suitable extinguishing media

Water fog. Foam. Carbon dioxide (CO2). Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only. Powder.

Unsuitable extinguishing media

Water. Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the chemical

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. By heating and fire, harmful vapors/gases may be formed. Material will float and may ignite on surface of water.

Special protective equipment and precautions for firefighters

Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Structural firefighters protective clothing will only provide limited protection.

Fire-fighting equipment/instructions

In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Move containers from fire area if you can do so without risk. Water runoff can cause environmental damage.

Specific methods

In the event of fire and/or explosion do not breathe fumes. Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Use standard firefighting procedures and consider the hazards of other involved materials. Move container from fire area if it can be done without risk.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Remove all possible sources of ignition in the surrounding area. 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. ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unnecessary personnel away. Local authorities should be advised if significant spillages cannot be contained. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak. Keep upwind. Keep out of low areas. Ventilate closed spaces before entering them. Avoid inhalation of vapors or mists. Wear appropriate personal protective equipment.

Methods and materials for containment and cleaning up

ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. Should not be released into the environment. The product is immiscible with water and will spread on the water surface. This material is a water pollutant and should be prevented from contaminating soil or from entering sewage and drainage systems and bodies of water. Prevent entry into waterways, sewers, basements or confined areas.

Large Spills: Stop leak if you can do so without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Use water spray to reduce vapors or divert vapor cloud drift. This material and its container must be disposed of as hazardous waste. Following product recovery, flush area with water. Clean up in accordance with all applicable regulations.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. This material is classified as a water pollutant under the Clean Water Act and should be prevented from contaminating soil or from entering sewage and drainage systems which lead to waterways.

Never return spills in original containers for re-use. For waste disposal, see section 13 of the MSDS.

Environmental precautions

Contact local authorities in case of spillage to drain/aquatic environment. Avoid discharge into drains, water courses or onto the ground. Avoid release to the environment. Use appropriate containment to avoid environmental contamination. Prevent further leakage or spillage if safe to do so. Do not contaminate water.

Material name: WATERMARK®, KARL FISCHER TITRANT, STABLE, 1 mg/ml, NON-HYGROSCOPIC

1602 Version #: 01 Revision date: Issue date: March-21-2014

3 / 11

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. 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. 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". DO NOT handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. 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. Do not taste or swallow. Avoid contact with skin. Avoid contact with eyes. Avoid contact during pregnancy/while nursing. Avoid contact with clothing. Use personal protective equipment as required. Avoid prolonged exposure. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Avoid release to the environment. Do not empty into drains.

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. Store in cool place. Eliminate sources of ignition. Avoid spark promoters. Ground/bond container and equipment. These alone may be insufficient to remove static electricity. Store in a well-ventilated place. Keep container tightly closed. Keep in an area equipped with sprinklers. Keep out of the reach of children. Store in a cool, dry place out of direct sunlight.

8. Exposure controls/personal protection

Occupational exposure limits

Components	Туре	Value	
ETHYLBENZENE (CAS 100-41-4)	PEL	435 mg/m3	
		100 ppm	
IODINE (CAS 7553-56-2)	Ceiling	1 mg/m3	
		0.1 ppm	
XYLENES (CAS 1330-20-7)	PEL	435 mg/m3	
		100 ppm	
US. ACGIH Threshold Limit Valu	ies		
Components	Туре	Value	Form
ETHYLBENZENE (CAS 100-41-4)	TWA	20 ppm	
IODINE (CAS 7553-56-2)	STEL	0.1 ppm	Vapor and aerosol.
	TWA	0.01 ppm	Inhalable fraction and vapor.
XYLENES (CAS 1330-20-7)	STEL	150 ppm	•
	TWA	100 ppm	
US. NIOSH: Pocket Guide to Che	emical Hazards		
Components	Туре	Value	
ETHYLBENZENE (CAS 100-41-4)	STEL	545 mg/m3	
		125 ppm	
	TWA	435 mg/m3	
		100 ppm	
IODINE (CAS 7553-56-2)	Ceiling	1 mg/m3	
		0.1 ppm	

Biological limit values

US. ACGIH. BEIs. Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
ETHYLBENZENE (CAS 100-41-4)	0.7 g/g	Sum of mandelic acid and phenylglyoxylic acid	Creatinine in urine	*

SDS US 1602 Version #: 01 Revision date: Issue date: March-21-2014 4 / 11

US. ACGIH. BEIs. Biological Exposure Indices

rminant Specimen Sampling Time	
**	
_	nylhippuric Creatinine *

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

Appropriate engineering controls

Explosion-proof general and local exhaust ventilation. An eye wash and safety shower must be

available in the immediate work area.

Individual protection measures, such as personal protective equipment

Eye/face protection Chemical goggles are recommended.

Skin protection

Hand protection Wear protective gloves.

Other Wear appropriate chemical resistant clothing. Wear protective gloves.

Respiratory protection When workers are facing concentrations above the exposure limit they must use appropriate

certified respirators. Do not breathe dust/fume/gas/mist/vapors/spray.

Thermal hazards Not available.

General hygiene considerations

When using, do not eat, drink or smoke. Avoid contact with eyes. Avoid contact with skin. Avoid contact with clothing. Wash hands before breaks and immediately after handling the product. Contaminated work clothing should not be allowed out of the workplace. Handle in accordance with good industrial hygiene and safety practice.

Appearance Liquid. **Physical state** Liquid. Form Liquid. Color Brown. Odor Aromatic. **Odor threshold** Not available. Not available.

9. Physical and chemical properties

Melting point/freezing point -28 °F (-33 °C) estimated Initial boiling point and

boiling range

279 - 291 °F (137 - 144 °C)

Flash point 79 °F (26 °C) **Evaporation rate** Not available. Flammability (solid, gas) Not applicable. Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

1 % estimated

Flammability limit -

upper (%)

6.8 % estimated

Explosive limit - lower

(%)

(%)

Explosive limit - upper

Not available. Not available.

10.3 hPa estimated Vapor pressure

Vapor density 3.7

Not available. Relative density Solubility(ies) **Immiscible Partition coefficient** Not available.

(n-octanol/water)

857 °F (458 °C) estimated **Auto-ignition temperature**

Decomposition temperature Not available. **Viscosity** Not available.

Other information

Density 0.88 g/cm3 estimated Flammability class Flammable IC estimated

Material name: WATERMARK®, KARL FISCHER TITRANT, STABLE, 1 mg/ml, NON-HYGROSCOPIC SDS US 1602 Version #: 01 Revision date: Issue date: March-21-2014 5 / 11

Flash point class Flammable IC

Percent volatile 92.5 - 98.2 %

Specific gravity 0.88 estimated

VOC (Weight %) 92.5 - 98.2 %

10. Stability and reactivity

Reactivity Not available.

Chemical stability Risk of ignition. Stable at normal conditions. **Possibility of hazardous** Hazardous polymerization does not occur.

reactions

Conditions to avoid Heat, flames and sparks. Avoid temperatures exceeding the flash point.

Incompatible materials Strong oxidizing agents. Strong acids. Halogens.

Hazardous decomposition

products

Irritants.

11. Toxicological information

Information on likely routes of exposure

Ingestion Not available.

Inhalation Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea. Due to lack

of data the classification is not possible.

Skin contact Harmful in contact with skin. May cause an allergic skin reaction.

Eye contact Causes serious eye irritation.

Symptoms related to the physical, chemical and toxicological characteristics

Narcosis. Edema. Liver enlargement. Jaundice. Proteinuria. Behavioral changes. Decrease in motor functions. Irritant effects. Symptoms of overexposure may be headache, dizziness, tiredness,

nausea and vomiting.

Information on toxicological effects

Acute toxicity Harmful in contact with skin.

Product Species Test Results

WATERMARK®, KARL FISCHER TITRANT, STABLE, 1 mg/ml, NON-HYGROSCOPIC (CAS Mixture)

Acute

Dermal

LD50 Rabbit 53.1836 g/kg, estimated

Inhalation

LC50 Mouse 4832.2861 mg/l, 6 h, estimated

4832.2861 mg/l, 6 Hours, estimated

4201 mg/l

Rat 7853.8564 mg/l, 4 h, estimated

7853.8564 mg/l, 4 Hours, estimated

6828 mg/l

LCL0 Rat 9894.6221 mg/l, 4 h, estimated

9894.6221 mg/l, 4 Hours, estimated

8602 mg/l

Oral

LD50 Mouse 3833 mg/kg

1571.4286 g/kg, estimated

Rabbit 99999 mg/kg

714.2857 g/kg, estimated

Rat 3556.1099 mg/kg, estimated

29.8459 g/kg, estimated

Other

LD50 Mouse 12801.4424 mg/kg, estimated

Material name: WATERMARK®, KARL FISCHER TITRANT, STABLE, 1 mg/ml, NON-HYGROSCOPIC

1602 Version #: 01 Revision date: Issue date: March-21-2014

6 / 11

Components	Species	Test Results
ETHYLBENZENE (CAS 100-41-4)		
Acute		
Dermal		
LD50	Rabbit	17800 mg/kg
Oral		
LD50	Rat	3500 mg/kg
		5.46 g/kg
Other		
LD50	Mouse	2272 mg/kg
IODINE (CAS 7553-56-2)		
Acute		
Oral		"
LD50	Mouse	22 g/kg
	Rabbit	10 g/kg
	Rat	14 g/kg
XYLENES (CAS 1330-20-7)		
Acute		
Dermal		
LD50	Rabbit	> 43 g/kg
Inhalation		2007 # 61
LC50	Mouse	3907 mg/l, 6 h
		3907 mg/l, 6 Hours
	Rat	6350 mg/l, 4 h
		6350 mg/l, 4 Hours
LCL0	Rat	8000 mg/l, 4 h
		8000 mg/l, 4 Hours
Oral		
LD50	Mouse	5627 mg/kg
		1590 mg/kg
	Rat	3523 - 8600 mg/kg
		6670 mg/kg
		4300 mg/kg
		3523 - 8600 mg/kg
		50 <u>-</u> 0 5555 mg/ ng

* Estimates for product may be based on additional component data not shown.

Skin corrosion/irritation Causes skin irritation.

Serious eye damage/eye

Respiratory sensitization

irritation

Causes serious eye irritation.

Skin sensitization May cause an allergic skin reaction.

• III • III

Germ cell mutagenicity Due to lack of data the classification is not possible.

Carcinogenicity Suspected of causing cancer.

IARC Monographs. Overall Evaluation of Carcinogenicity

ETHYLBENZENE (CAS 100-41-4) 2B Possibly carcinogenic to humans.

XYLENES (CAS 1330-20-7) 3 Not classifiable as to carcinogenicity to humans.

Due to lack of data the classification is not possible.

Reproductive toxicityComponents 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

May cause irritation to the respiratory system. Narcotic effects. Causes damage to organs (central nervous system, kidney, liver, respiratory system).

Specific target organ toxicity - repeated exposure

Causes damage to organs (nervous system, respiratory system, thyroid gland) through prolonged or repeated exposure.

Aspiration hazard Due to lack of data the classification is not possible.

Material name: WATERMARK®, KARL FISCHER TITRANT, STABLE, 1 mg/ml, NON-HYGROSCOPIC

1602 Version #: 01 Revision date: Issue date: March-21-2014

7 / 11

Prolonged inhalation may be harmful. Prolonged exposure may cause chronic effects. Causes damage to organs through prolonged or repeated exposure.

12. Ecological information

Ecotoxicity

Toxic to aquatic life with long lasting effects. Components of this product are hazardous to aquatic

life. Accumulation in aquatic organisms is expected.

Product		Species	Test Results
WATERMARK®, KARL FISCHER TITRANT, STABLE, 1 mg/ml, NON-HYGROSCOPIC (CAS Mixture)			
Crustacea	EC50	Daphnia	22.6082 mg/l, 48 hours, estimated
Fish	LC50	Fish	37.0034 mg/l, 96 hours, estimated
Components		Species	Test Results
ETHYLBENZENE (CAS	100-41-4)		
Aquatic			
Crustacea	EC50	Water flea (Daphnia magna)	1.37 - 4.4 mg/l, 48 hours
Fish	LC50	Atlantic silverside (Menidia menidia)	4.4 - 5.7 mg/l, 96 hours
IODINE (CAS 7553-56	-2)		
Aquatic			
Fish	LC50	Rainbow trout, donaldson trout (Oncorhynchus mykiss)	0.48 - 0.58 mg/l, 96 hours
			0.48 - 0.58 mg/l, 96 hours
XYLENES (CAS 1330-2	0-7)		
Aquatic			
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	6.702 - 10.032 mg/l, 96 hours

^{*} Estimates for product may be based on additional component data not shown.

Persistence and degradability None known. **Bioaccumulative potential** Not available.

Partition coefficient n-octanol / water (log Kow)

IODINE 2.49 XYI FNFS 3.12 - 3.2**ETHYLBENZENE** 3.15

Mobility in soil Not available. Other adverse effects Not available.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material

and its container must be disposed of as hazardous waste. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations Not available.

Hazardous waste code D001: Waste Flammable material with a flash point <140 F

Waste from residues / Dispose of in accordance with local regulations. Empty containers or liners may retain some unused products product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal.

Since emptied containers may retain product residue, follow label warnings even after container is

emptied.

14. Transport information

DOT

UN1307 **UN number UN proper shipping name Xylenes Solution**

Transport hazard class(es) 3

Subsidary class(es) Not available.

Packing group III

Material name: WATERMARK®, KARL FISCHER TITRANT, STABLE, 1 mg/ml, NON-HYGROSCOPIC 1602 Version #: 01 Revision date: Issue date: March-21-2014 8 / 11

SDS US

Special precautions for Read safety instructions, SDS and emergency procedures before handling.

user

Labels required 3

Special provisions B1, IB3, T2, TP1

Packaging exceptions150Packaging non bulk203Packaging bulk242

IATA

UN number UN1307

UN proper shipping name Xylenes Solution

Transport hazard class(es) 3
Subsidary class(es) Packaging group III
Environmental hazards No

Labels required Not available.

ERG Code 3L

Special precautions for Not available.

user

IMDG

UN number UN1307

UN proper shipping name XYLENES SOLUTION

Transport hazard class(es) 3
Subsidary class(es) Packaging group III
Environmental hazards

Marine pollutant No

Labels requiredNot available.EmSF-E, S-DSpecial precautions forNot available.

user

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available.

General information DOT Regulated Marine Pollutant. IMDG Regulated Marine Pollutant.

DOT



IATA; IMDG



15. Regulatory information

US federal regulations All components are on the U.S. EPA TSCA Inventory List.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not on regulatory list.

Material name: WATERMARK®, KARL FISCHER TITRANT, STABLE, 1 mg/ml, NON-HYGROSCOPIC

1602 Version #: 01 Revision date: Issue date: March-21-2014

9 / 11

CERCLA Hazardous Substance List (40 CFR 302.4)

ETHYLBENZENE (CAS 100-41-4) LISTED XYLENES (CAS 1330-20-7) LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

No

Hazard categories Immediate Hazard - Yes

Delayed Hazard - Yes Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely

hazardous substance

SARA 311/312 No

Hazardous chemical

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

ETHYLBENZENE (CAS 100-41-4) XYLENES (CAS 1330-20-7)

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number

Not listed.

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))

IODINE (CAS 7553-56-2)

2.2 % weight/volumn

DEA Exempt Chemical Mixtures Code Number

IODINE (CAS 7553-56-2) 6699

Food and Drug Not regulated.

Administration (FDA)

US state regulations WARNING: This product contains a chemical known to the State of California to cause cancer.

US. Massachusetts RTK - Substance List

ETHYLBENZENE (CAS 100-41-4) IODINE (CAS 7553-56-2) XYLENES (CAS 1330-20-7)

US. New Jersey Worker and Community Right-to-Know Act

ETHYLBENZENE (CAS 100-41-4) 500 lbs XYLENES (CAS 1330-20-7) 500 lbs

US. Pennsylvania RTK - Hazardous Substances

ETHYLBENZENE (CAS 100-41-4) IODINE (CAS 7553-56-2) XYLENES (CAS 1330-20-7)

US. Rhode Island RTK

ETHYLBENZENE (CAS 100-41-4) XYLENES (CAS 1330-20-7)

US. California Proposition 65

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

ETHYLBENZENE (CAS 100-41-4)

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

Material name: WATERMARK®, KARL FISCHER TITRANT, STABLE, 1 mg/ml, NON-HYGROSCOPIC

1602 Version #: 01 Revision date: Issue date: March-21-2014

10 / 11

Country(s) or region Inventory name On inventory (yes/no)*

New ZealandNew Zealand InventoryYesPhilippinesPhilippine Inventory of Chemicals and Chemical SubstancesYes

(PICCS)

United States & Puerto Rico Toxic Substances Control Act (TSCA) Inventory Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other information, including date of preparation or last revision

Issue date March-21-2014

Version # 01

Further information Not available.

Disclaimer The information given is designed only as a guidance for safe handling, use, processing, storage,

transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. The information in the sheet was written based on the best knowledge and experience

currently available.

Revision Information Product and Company Identification: Product Codes

Composition / Information on Ingredients: Ingredients Physical & Chemical Properties: Multiple Properties

Material name: WATERMARK®, KARL FISCHER TITRANT, STABLE, 1 mg/ml, NON-HYGROSCOPIC

SDS US

1602 Version #: 01 Revision date: Issue date: March-21-2014

11 / 11