MATERIAL SAFETY DATA SHEET

Waters Analytical Standards & Reagents

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: Waters Analytical Standards & Reagents
ADDRESS: 16341 Table Mountain Parkway
Golden, CO, 80403 U.S.A.

BUSINESS PHONE: 303-431-8454
FAX: 303-421-0159
EMAIL: info@eraqc.com
CHEMICAL EMERGENCY PHONE: 352-323-3500 (INFOTRAC)

EU FACILITIES: Waters Chromatography Europe B.V.; Mon Plaisir 12, Postbus 215; 4870 AE Etten-Leur NB, The Netherlands
TEL +31 76 508 1800 – Waters Technologies Ireland Ltd; Drinagh, Wexford, Ireland; TEL +353 5391 60400

Product Name(s): Waters MS Chemical Test Kit
Catalog / Part Number(s): 700002157
Product Use: For laboratory use only. Analytical reagent or certified reference material used in laboratories.
MSDS Creation Date: January 21, 2009 **Revision Date:** July 23, 2012 **MSDS Reference Number:** 700002157

SECTION 2: HAZARDS IDENTIFICATION

Flammable liquid. Harmful. Irritant. Corrosive. Harmful in contact with skin and if swallowed. The matrix of each standard is a solvent/water mixture listed below which is classified as dangerous by Directive 199/45/EC. Use only as directed and in accordance with good laboratory practices.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

				EXPOSURE LIMITS		EU LABEL
CHEMICAL INGREDIENT NAME	CAS NUMBER	EC NUMBER	% BY WT.	OSHA	ACGIH	HAZARD LABEL
Acetonitrile (700002339 & 700002340)	75-05-8	200-835-2	≤30.0	60 ppm	40 ppm; 60 ppm STEL	
Acetonitrile (700001594)	75-05-8	200-835-2	≤50.0	60 ppm	40 ppm; 60 ppm STEL	
Isopropanol (700001593)	67-63-0	200-661-7	≤50.0	500 ppm; 400 STEL	400 ppm; 200 STEL	
Formic acid (700002341)	64-18-6	200-579-1	≤100	9 mg/m3	9.4 mg/m3	

Notes: These standards are a mixture of organic chemicals which are present at levels <0.3% in a matrix of the solvent % listed above with the remainder being water; packaged in small 10-15 mL bottles/ampoules. Exposure Limits are 8-Hour TWA (Time Weighted Average) unless designated C (Ceiling) or STEL (Short Term Exposure Limit). Other components considered Non-Hazardous under OSHA 1910.1200 (HazCom) as they are not present in concentrations exceeding 1% (or 0.1% if considered a known or potential carcinogen).
Material Use: Analytical reagent or certified reference material used in laboratories. Uses also include research and development.

SECTION 4: FIRST-AID MEASURES

Inhalation: Remove to fresh air.
Skin Contact: Flush with water.
Eye Contact: Immediately flush with water for a minimum of 15 minutes.
Ingestion: Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek immediate medical attention.
After following first aid measures, seek medical attention.

SECTION 5: FIRE-FIGHTING MEASURES

Flammable Properties: Flammable Liquid. Vapor may travel considerable distance to source of ignition and flash back.
Extinguishing Media: Dry chemical, carbon dioxide or appropriate foam.
Unique Aspects contributing To a Fire: May burn with a clear, almost invisible flame.
Special Fire Fighting Procedures: Same as for any flammable liquids. Note: As in any fire, wear self-contained breathing apparatus, and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Shut off all sources of ignition. Ensure adequate ventilation. Wear appropriate personal protective equipment. Absorb with spill pillow or other absorbent and place in closed container for later disposal.

SECTION 7: HANDLING AND STORAGE

Keep container tightly closed. Store in a flammable storage cabinet. Avoid sources of ignition. Handle in accordance with good laboratory practices. This product is intended for use only by people trained in the safety and handling of chemicals and laboratory preparations.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Handle in accordance with good laboratory practices.
Respiratory Protection: Not normally needed. If exposure limits are exceeded, use approved/certified respirator.
Eye Protection: Splash goggles.
Skin Protection: Neoprene or other chemical resistant gloves.
Engineering Controls: Work in a fume hood or use general or other local exhaust ventilation to meet Exposure Limits.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear except #700002341 cloudy	Specific Gravity:	NA	Melting Point:	NA
Physical State:	Liquid	Flash Point:	3°C 37°F (Acetonitrile matrix)	Vapor Pressure:	NA
Odor:	Slight	Explosion Limits:	NA	Vapor Density (air=1):	NA
pH:	NA	Boiling Point:	82°C 180°F (Acetonitrile matrix)	Solubility in Water:	Soluble

SECTION 10: STABILITY AND REACTIVITY

Hazardous Polymerization Will Not Occur __X__ May Occur____ Stability: Stable __X__ Unstable ____
Hazardous Decomposition/Combustion Products: Carbon monoxide, carbon dioxide.
Conditions and Materials to Avoid: Heat, flame, sources of ignition.

SECTION 11: TOXICOLOGICAL INFORMATION

Primary Route(s) of Exposure Under Normal Use: Inhalation, eye contact, absorbed through skin.

Target Organ(s): Respiratory system, eyes, liver, kidney, blood, central nervous system.

Acute Effects: Headache, nausea, dizziness, blurred vision, central nervous system depression, respiratory depression.
Acetonitrile: Oral, rat: LD50 =2460 mg/kg; Oral, mouse: LD50 =269 mg/kg; Dermal, rabbit: LD50 = 1250 mg/kg.
Isopropanol: Oral, rat: LD50=5045 mg/kg; Oral, mouse: LD50=3600 mg/kg.
Formic Acid: Oral, rat: LD50 =1100mg/kg; Oral, mouse: LD50=70 mg/kg.

Chronic Effects: Effect on the nervous system. Impaired vision, dermatitis. May be toxic to reproductive system male/female.

Other Information: Chemical Ingredient(s) are not classified as carcinogen(s) by OSHA, IARC, NTP, ACGIH, or California. Acetonitrile, Isopropanol & Formic acid are listed as RTK in Massachusetts, Pennsylvania & New Jersey.

SECTION 12: ECOLOGICAL INFORMATION

Acetonitrile: Dangerous to aquatic life in high concentrations. Etoxicity in water (LC50): 1020 mg/L 96 hours [Fish (Fathead minnow)]. 1850 mg/L 96 hours [Fish (bluegill)]. Isopropanol: Etoxicity in water (LC50): 100000 mg/L 96 hours [Fish (Fathead minnow)]. 64000 mg/L 96 hours [Fish (Fathead minnow)]. Formic Acid: Toxicity in water (LC50): 34 ppm 48 hrs [Daphnia]. 5000 mg/L 24 hrs [Bluegill].

SECTION 13: DISPOSAL CONSIDERATIONS

To determine proper disposal, consult applicable federal, state and local environmental control regulations.

SECTION 14: TRANSPORT INFORMATION

Shipping Name: Flammable liquid, corrosive, n.o.s. (Acetonitrile, Isopropanol, Formic Acid)
UN Number: 2924 Shipping/Hazardous Class: 3, (8) Packing Group: II
Shipping regulations are based on combinations of criteria such as quantity, class and packaging according to DOT, IATA and (49) CFR. Overpack may be required.

Additional information: This product may be shipped as part of chemical kit composed of various compatible dangerous goods for analytical testing purposes. Then this kit would have the following classification: Shipment Name: Chemical Kit Hazard Class 9 UN Number 3316

SECTION 15: REGULATORY INFORMATION

EU Symbol of Danger: Flammable (F); Harmful (Xn); Irritant (Xi); Corrosive (C)
EU Risk Phrases: Highly Flammable [R 11]; Harmful by inhalation, in contact with skin and if swallowed [R 20/21/22]; Irritating to eyes and skin [R 36/37/38]. Vapors may cause drowsiness and dizziness [R67]. Corrosive – causes burns to skin [R35]

U.S. TSCA: Constitutes listed.
Canada: This product has been classified according to the hazard criteria of the CPR and this MSDS contains all the information required by the CPR.

SECTION 16: OTHER INFORMATION

United States EPA Regulatory Information:
SARA 313: Acetonitrile & Isopropanol
CERCLA RQ: 5000 lbs

NFPA Rating: Health: 3 Flammability: 2 Reactivity: 0
(4=Severe, 3=Serious, 2=Moderate, 1=Slight, 0=Minimal)
HMIS Rating: Health: 3 Flammability: 2 Physical Hazard: 0
These ratings are for Formic Acid

NOTE: NA = Data not available, not established, determined or not pertinent.
DISCLAIMER: The information contained herein has been compiled from data presented in various technical sources believed to be accurate. This information is intended to be used only as a guide and does not purport to be complete. ERA makes no warranties and assumes no liability in connection with the use of this information. It is the user's responsibility to determine the suitability of this information and to assure the adoption of necessary precautions.