

## Material Safety Data Sheet

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### 1. IDENTIFICATION

Product: AccQ•Fluor™ Reagent Kit, WAT 052880; AccQ•Tag™ Ultra Derivatization Kit, MSDS #: WAT 052887  
 186003836, AccQ•Tag™ Ultra 3X Derivatization Kit, 186004535.

MSDS Creation Date: November 15, 1996


Revision: 6, April 7, 2010

### 2. HAZARDS IDENTIFICATION: EC Directive 1272/2008/GHS Signal Word, Classification and Hazard Statement(s):

- Acetonitrile: Danger. Flammable liquid, Category 2: Highly flammable liquid and vapour. [H225] ; Acute toxicity, Category 4: Harmful if inhaled. [H332]; Harmful in contact with skin. [H312]; Harmful if swallowed. [H302]; Serious eye damage/eye irritation, Category 2: Causes serious eye irritation. [H319].

The small quantities supplied in our products are unlikely to cause severe or immediate health effects. However, acetonitrile is flammable and toxic, and 6-aminoquinolyl-n-hydroxysuccinimidyl carbamate can be irritating. Borate buffer has no hazard in normal industrial use. Use only as directed and in accordance with good laboratory practices.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS:

CHEMICAL INGREDIENT NAME	CAS NUMBER	EC NUMBER	% BY WT.	EXPOSURE LIMITS			EU/GHS CLASSIFICATION, PICTOGRAMS
				OSHA	ACGIH	EU IOELV	
Borate Buffer: (<5% Sodium Tetraborate and >95% water)	1303-96-4 (sodium tetraborate)	215-540-4	100	10 mg/m <sup>3</sup> (sodium tetraborate)	5 mg/m <sup>3</sup> (sodium tetraborate)	NE	NE for C ≤ 8.5%
Acetonitrile	75-05-8	200-835-2	100	40 ppm; 60 ppm STEL	20 ppm (skin)	70mg/m <sup>3</sup> , 40ppm; STEL (15 minutes)	 Flam Liq 2; Acute Tox 4
6-aminoquinolyl-n-hydroxysuccinimidyl carbamate	148757-94-2	NE	>98	NE	NE	NE	NE

Notes: Kits contains: 5 x 6 mL vials of Reagent 1 ( 100% Borate Buffer), either 5 x 9 mg or 5 x 3 mg vials Reagent 2A ( >98% 6-Aminoquinolyl-n-hydroxysuccinimidyl Carbamate), and 5 x 4 mL vials Reagent 2B ( 100% Acetonitrile).

Exposure Limits are 8-Hour TWA (Time Weighted Average) unless designated C (Ceiling) or STEL (Short Term Exposure Limit).

### 4. FIRST AID MEASURES:

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen.

Skin Contact: Flush with water.

Eye Contact: Immediately flush with water for a minimum of 15 minutes.

Ingestion: Get medical attention.

After following first aid measures, seek medical attention. In extreme cases of acetonitrile exposure, cyanide antidote protocols should be considered.

### 5. FIRE-FIGHTING MEASURES:

Flammable Properties: Acetonitrile is flammable.

Extinguishing Media: Dry chemical, carbon dioxide or appropriate foam.

Unique Aspects Contributing To a Fire: Acetonitrile emits toxic fumes under fire conditions.

Special Fire Fighting Procedures: None.

Note: As in any fire, wear self-contained breathing apparatus, and full protective gear.

6. ACCIDENTAL RELEASE MEASURES: Due to small quantities involved, spills or leaks should not pose a significant problem. Liquids may be absorbed with spill pillow or other absorbent, powders may be swept up. Place wastes into closed containers for proper disposal.

7. HANDLING AND STORAGE: Handle as directed and in accordance with good laboratory practices.

### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION:

Handle in accordance with good laboratory practices.

Respiratory Protection: Not normally needed. If exposure limits are exceeded, use approved particulate respirator, or, for acetonitrile, use approved Supplied Air respirator (due to poor warning properties and short Organic Vapor (OV) service life, OV Cartridge Respirators are not recommended).

Eye Protection: Splash goggles or safety glasses with side protection.

Skin Protection: Neoprene or other chemical resistant gloves. Disposable nitrile are acceptable for light intermittent exposure.

Engineering Controls: Work in a fume hood or use general or other local exhaust ventilation to meet Exposure Limits.

**9. PHYSICAL AND CHEMICAL PROPERTIES:**

Appearance: **Liquid and powder reagents**

Physical State: <b>Liquid and Powder</b>	Flash Point: <b>42°F (5.6°C) (acetonitrile)</b>	Vapor Pressure: <b>NE</b>
Odor: <b>NE</b>	Explosion Limits: <b>NA</b>	Vapor Density (air=1): <b>NE</b>
pH: <b>8.8 (Borate Buffer)</b>	Boiling Point: <b>180°F (82°C) (acetonitrile)</b>	Solubility in Water: <b>Soluble</b>
Specific Gravity: <b>NE</b>	Melting Point: <b>NE</b>	Other: <b>NA</b>

**10. STABILITY AND REACTIVITY:**

Hazardous Polymerization  Will Not Occur  May Occur

Stability: **Stable**

Hazardous Decomposition/Combustion Products:

**Hydrogen cyanide, nitrogen oxides, carbon monoxide, carbon dioxide.**

Conditions & Materials to Avoid:

**Acids, bases, strong oxidizing agents, sources of Ignition.**

**11. TOXICOLOGICAL INFORMATION:**

Primary Route(s) of Exposure under Normal Use: **Inhalation and, for acetonitrile only , skin absorption.**

Target Organ(s): **Acetonitrile: Liver, kidneys, respiratory system, cardiovascular system, central nervous system.**

**Sodium tetraborate: Skin, eyes, and upper respiratory tract.**

Acute Effects: **Acetonitrile: Vapor is irritating to eyes, mucous membranes and upper respiratory tract. May cause headache, dizziness, nausea. Causes skin irritation. Severe exposure can have delayed effects due to metabolic release of cyanide.**

**Oral, rat: LD50 = 2460 mg/kg; Inhalation, rat: LC50 = 7551 ppm/8H; Oral, mouse: LD50 = 269 mg/kg;**

**Skin, rabbit: LD50 = 1250 uL/kg.**

**Sodium tetraborate: Skin, eye, and upper respiratory irritation; Possible shortness of breath and nose bleeds.**

**6-Aminoquinolyl-n-hydroxysuccinimidyl carbamate: NE**

Chronic Effects: **Acetonitrile: Long term exposures may affect liver, kidneys, and central nervous system.**

Other Information: **Chemical Ingredient(s) not classified as carcinogen(s) by OSHA, IARC, NTP, ACGIH, or California.**

**12. ECOLOGICAL INFORMATION: Acetonitrile: Biodegradable. LC50/96-hour values for fish > 100 mg/l. TLm fathead minnow 1020 mg/l/96 hr (hard water).**

**13. DISPOSAL CONSIDERATIONS: To determine proper disposal, consult applicable national and regional regulations. Acetonitrile waste is classified as hazardous waste by the U.S. Environmental Protection Agency (EPA).**

**14. TRANSPORT INFORMATION:**

U.S. DOT: Shipping Name: **Acetonitrile**

**Hazard Class: 3**

**UN/NA #: UN1648**

**Packing Group #: II**

IATA/ICAO: **Acetonitrile UN 1648**

**Class 3, PG II**

**15. REGULATORY INFORMATION:**

EU/GHS Precautionary Statements: **Harmful by inhalation, in contact with skin and if swallowed. Keep away from sources of ignition - No smoking. Wear suitable protective clothing and gloves.**

U.S. TOSCA: **Sodium tetraborate - Listed; Acetonitrile - Listed; 6 Aminoquinolyl-n-hydroxysuccinimidyl carbamate – R&D**

**Exemption: For laboratory use only.**

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.**

**16. OTHER INFORMATION:**

<u>U.S. EPA</u>		<u>National Fire Protection Association Rating</u>	
<u>SARA 313 Chemicals</u>	<u>CERCLA RQ</u>		<u>ACN</u>
<b>Acetonitrile</b>	<b>5000 lbs</b>	<b>4=Severe Hazard</b>	<b>HEALTH 2</b>
		<b>3=Serious Hazard</b>	<b>FLAMMABILITY 3</b>
		<b>2=Moderate Hazard</b>	<b>REACTIVITY 0</b>
		<b>1=Slight Hazard</b>	<b>OTHER</b>
		<b>0=Minimal Hazard</b>	

Notes: **Not Established (NE) means a value has not been set or there is no information available. Not Applicable (NA) means that the topic is not pertinent.**

**For laboratory use only. Not for drug, household or other uses.**

The information contained herein has been compiled from data presented in various technical sources believed to be accurate. Waters 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.

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