MATERIAL SAFETY DATA SHEET

Waters Analytical Standards & Reagents

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER: Waters Analytical Standards & Reagents
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Product Name(s): Waters SFC Standard Ketoprofen
Catalog / Part Number(s): 186006522
Product Use: For laboratory use only. Analytical reagent or certified reference material used in laboratories.
MSDS Creation Date: April 3, 2012 **Revision Date:** June 14, 2013 **MSDS Reference Number:** 186006522

SECTION 2: HAZARDS IDENTIFICATION

Classification & labeling according to Table 3.1 Annex VI of regulation 1272/2008/EU as amended.
GHS Classification: Flammable Liquid (Cat. 2); Eye Irritant (Cat. 2); Specific Target Organ Toxicity (STOT) Single Exposure (SE) (Cat. 3)

GHS/CLP Label Elements – Pictogram(s): Signal Word: Danger
Hazard statements: H225 Highly flammable liquid and vapor; H319 Causes serious eye irritation; H336 May cause drowsiness or dizziness.
Precautionary statements: Keep away from heat/sparks/open flames/hot surfaces. - No smoking; Avoid breathing dust/fume/gas/mist/vapors/spray; IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and continue rinsing.
The small quantities supplied in our products are unlikely to cause severe or immediate health effects. Use only as directed and in accordance with good lab practices.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

				EXPOSURE LIMITS		
CHEMICAL INGREDIENT NAME	CAS NUMBER	EINECS EC NUMBER	% BY WT.	OSHA	ACGIH	EU IOELV
Isopropanol (2-Propanol)	67-63-0	200-661-72	95.0-99.9	500 ppm; 400 STEL	400 ppm; 200 STEL	NA
*Ketoprofen	22071-15-4	NA	0.05-0.1	*	*	NA

Notes: *The low concentration level of the components in this analytical standard has been determined as non hazardous. Using the GHS bridging principles, Isopropanol is the hazardous classifying component of the mixture. Those components are also 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). Exposure Limits are 8-Hour TWA (Time Weighted Average) unless designated C (Ceiling) or STEL (Short Term Exposure Limit).

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: Burns 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. 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.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Clear	Specific Gravity:	NA	Melting Point:	NA
Physical State:	Liquid	Flash Point:	12°C 54°F (IPA matrix)	Vapor Pressure:	NA
Odor:	Alcohol like	Explosion Limits:	LEL 2% UEL 1.7%	Vapor Density (air=1):	NA
pH:	NA	Boiling Point:	82°C 180°F (IPA 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.
Isopropanol: Oral, rat: LD50=5045 mg/kg; Inhalation, rat: LC50=16,000 ppm-8 h; Dermal rabbit: LD50=12,800 mg/kg

Chronic Effects: May be toxic to reproductive system male/female (possible).

Other Information: Chemical Ingredient(s) not classified as carcinogen(s) by OSHA, IARC, NTP, ACGIH, or California. Isopropanol is IARC Group 3 – not classifiable as to its carcinogenicity to humans. Isopropanol is listed as RTK in Massachusetts, Pennsylvania & New Jersey.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity to fish LC50 - Pimephales promelas (fathead minnow) - 9,640.00 mg/l - 96 h; Toxicity to daphnia and other aquatic invertebrates EC50 - Daphnia magna (Water flea) - 5,102.00 mg/l - 24 h; Immobilization EC50 - Daphnia magna (Water flea) - 6,851 mg/l - 24 h; Toxicity to algae EC50 - Desmodesmus subspicatus (green algae) - > 2,000.00 mg/l - 72 h EC50 - Algae - > 1,000.00 mg/l - 24 h.

SECTION 13: DISPOSAL CONSIDERATIONS

Consult applicable local, state or national regulations for proper disposal. US EPA does not classify unused product as hazardous waste.

SECTION 14: TRANSPORT INFORMATION

IATA: Shipping Name: Alcohols, n.o.s. (Isopropanol solution)
UN Number: 1987 Shipping/Hazardous Class: 3 Packing Group: II
Shipping regulations are based on combinations of criteria such as Excepted Quantity, Class and packaging according to DOT, IATA and (49) CFR.

SECTION 15: REGULATORY INFORMATION

U.S. TOSCA: 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: Isopropanol
CERCLA RQ: 5000 lbs

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

NOTE: NA = Data not available, not established, not 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. 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.