



MATERIAL SAFETY DATA SHEET

SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: BUEHLER EDGEMET PRE-CLEAN

IDENTIFICATION NUMBER: 20-8192 (PRE-CLEAN)

PRODUCT USE/CLASS: Pre-clean solution

SUPPLIER:

BUEHLER, a division of Illinois Tool Works Inc.

41 WAUKEGAN ROAD

LAKE BLUFF, IL 60044

EMERGENCY: 800-424-9300

INFORMATION: 847-295-6500

PREPARER: Technical Department, 847-295-6500

PREPARE DATE: 4/03/2012, 03 April 2012

SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT%			
01	Hydrochloric acid	7647-01-0	< 1.0			
02	Stannic chloride	7646-78-8	< 1.0			
ITEM	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL - CEILING	COMPANY TLV-TWA	SKIN
01	N.E.	5 ppm*	N.E.	5 ppm	5 ppm	YES
02	2 mg/m ³	10 mg/m ³ *	2 mg/m ³	N.E.	N.E.	NO

* - Ceiling Value

(SEE SECTION 16 FOR ABBREVIATION LEGEND)

SECTION 3 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Harmful if swallowed. Irritating to skin. Contact with eyes may cause injury. Vapors irritating to eyes and respiratory tract.

ACUTE EFFECTS – EYE CONTACT: Severe irritant. Contact causes irritation, redness, swelling, and tearing. Can cause injury to eyes if not removed promptly. Product vapor can cause lacrimation, conjunctivitis, and corneal edema when absorbed into the tissue of the eye. Corneal edema may give rise to a perception of "blue haze" or "fog" around lights. The effect is transient and has no known residual effect.

ACUTE EFFECTS - SKIN CONTACT: Irritating to skin. Contact may cause drying, redness, and dermatitis. May cause damage to skin if not removed promptly.

ACUTE EFFECTS – INHALATION: Respiratory irritant. Liquid aspirated into lungs may cause serious injury or death. Prolonged or repeated inhalation may cause lung damage. Extreme overexposure may cause inflammation and ulceration of the respiratory tract.

ACUTE EFFECTS - INGESTION: Harmful if swallowed. Swallowing significant amounts may cause severe and permanent damage to mouth, throat and stomach.

CHRONIC OVEREXPOSURE EFFECTS: *Preexisting pulmonary and dermatological conditions may be aggravated by exposure to hazardous components. *Repeated or extreme overexposure to tin may cause diarrhea, fatigue, headache, and a metallic taste in the mouth.

OTHER INFORMATION: Not Applicable.

PRIMARY ROUTE(S) OF ENTRY: SKIN CONTACT, INHALATION, EYE CONTACT

SECTION 4 – FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water. Get immediate medical attention.

SKIN CONTACT: Immediately flush thoroughly with plenty of water. Get medical attention if irritation develops or persists.

INHALATION: If symptoms occur, remove to fresh air. Medical personnel may administer oxygen if breathing is difficult. Seek medical attention if symptoms persist.

INGESTION: Do not induce vomiting. If victim is conscious and not drowsy, give one or two glasses of milk to drink and contact Poison Control Center immediately or obtain immediate medical attention.

NOTES TO PHYSICIAN: The manifestations of respiratory symptoms, including pulmonary edema, resulting from extreme acute overexposure, may be delayed. No specific antidote. Supportive care. Treat symptomatically. If swallowed, gastric lavage is indicated.

SECTION 5 – FIRE FIGHTING MEASURES

FLASH POINT: N.A.

LOWER EXPLOSIVE LIMIT: N.A.

UPPER EXPLOSIVE LIMIT: N.A.

AUTOIGNITION TEMPERATURE: N.A.

EXTINGUISHING MEDIA: Unknown

UNUSUAL FIRE AND EXPLOSION HAZARDS: Does not burn. Will release toxic and corrosive vapors if heated.

SPECIAL FIREFIGHTING PROCEDURES: Use full protective equipment.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Reclaim clean material. Contaminated material should be absorbed with inert material, such as clay. Sweep or shovel contaminated absorbent into appropriate waste container and disposed of in accordance with applicable federal, state and local regulations. Flush spill area with plenty of water.

SECTION 7 – HANDLING AND STORAGE

HANDLING: Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Prevent contact with skin and eyes. Do not heat. Avoid inhaling vapors.

STORAGE: Keep from freezing.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: General industrial ventilation usually adequate.

RESPIRATORY PROTECTION: None normally required under good general industrial ventilation. If TLV/PEL is exceeded, if use is performed in a poorly-ventilated space, or if inhalation effects occur, use NIOSH- approved acid vapor cartridge respirator in accordance with applicable health and safety regulations and manufacturer's recommendations.

SKIN PROTECTION: Clean clothing to cover skin. Rubber or synthetic gloves.

EYE PROTECTION: Chemical splash goggles. Face shield.

OTHER PROTECTIVE EQUIPMENT: Accessible eye wash and safety shower.

HYGIENIC PRACTICES: Follow good general industrial safety practices during use. Do not smoke or eat during use.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

BOILING RANGE:	N.A.	VAPOR DENSITY:	Is lighter than air
ODOR:	Acrid/acidic	ODOR THRESHOLD:	No data
APPEARANCE:	Light yellow	EVAPORATION RATE:	Is slower than Butyl Acetate
SOLUBILITY IN H ₂ O:	Complete		
FREEZE POINT:	32 deg F	SPECIFIC GRAVITY:	1.0021
VAPOR PRESSURE:	17.5mmHg@20degC	pH @ 0.0%:	2.3
PHYSICAL STATE:	Liquid	VISCOSITY:	Low
COEFFICIENT OF WATER/OIL DISTRIBUTION:	No data		

(SEE SECTION 16 FOR ABBREVIATION LEGEND)

SECTION 10 – STABILITY AND REACTIVITY

CONDITIONS TO AVOID: Prolonged exposure to heat.

INCOMPATIBILITY: Strong bases or oxidants. Metals. Surface-active compounds. Heat and flame. Amines.

HAZARDOUS DECOMPOSITION PRODUCTS: Chlorine gas.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

SECTION 11 – TOXICOLOGICAL PROPERTIES

COMPONENT TOXICOLOGICAL DATA:

---ITEM---	CHEMICAL NAME	----- LD50-----	LC50
01	Hydrochloric acid	Oral(rbt)=900mg/kg	Inh(rat)=3124ppm/1Hr
02	Stannic chloride	No information	No information

SECTION 12 – ECOLOGICAL INFORMATION

ECOLOGICAL TEST DATA: Not Available

SECTION 13 – DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: Review all current federal, state, and local regulations regarding health and disposal for appropriate disposal procedures. Not considered a hazardous waste per federal RCRA regulations if disposed of "as sold". May be neutralized and flushed into drains if local regulations and facility controls permit.

SECTION 14 – TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: Not considered a dangerous good for transport.

DOT TECHNICAL NAME: N.A.

HAZARD SUBCLASS: N.A.

DOT HAZARD CLASS: N.A.

PACKAGING GROUP: N.A.

DOT UN/NA CLASS: N.A.

RESP. GUIDE PAGE: N.A.

INTERNATIONAL SHIPPING NAME: Not considered a dangerous good for transport.

INTERNATIONAL ID NUMBER: N.A.

IMDG CLASS (1°, 2°): N.A.

IMDG PAGE NUMBER: N.A.

IMDG EMS: N.A.

IATA CLASS (1°, 2°): N.A.

SECTION 15 – REGULATORY INFORMATION

OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200)

CERCLA – SARA HAZARD CATEGORY: THIS PRODUCT HAS BEEN REVIEWED, AND IS CONSIDERED, UNDER APPLICABLE DEFINITIONS, TO MEET THE FOLLOWING CATEGORIES: IMMEDIATE HEALTH HAZARD

SARA SECTION 313: THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 AND 40 CFR PART 372:

----- CHEMICAL NAME ----- CAS NUMBER WT/WT % IS LESS THAN

No SARA Section 313 components exist in this product.

TOXIC SUBSTANCE CONTROL ACT: THE CHEMICAL SUBSTANCES IN THIS PRODUCT ARE ON THE TSCA SECTION 8 INVENTORY. THIS PRODUCT CONTAINS THE FOLLOWING CHEMICAL SUBSTANCES SUBJECT TO THE REPORTING REQUIREMENTS OF TSCA 12(B) IF EXPORTED FROM THE UNITED STATES:

----- CHEMICAL NAME ----- CAS NUMBER

No components found.

SECTION 15 – REGULATORY INFORMATION

NEW JERSEY RIGHT-TO-KNOW: THE FOLLOWING MATERIALS ARE NON-HAZARDOUS, BUT ARE AMONG THE TOP 5 COMPONENTS IN THIS PRODUCT:

----- CHEMICAL NAME -----	CAS NUMBER
Water	7732-18-5

PENNSYLVANIA RIGHT-TO-KNOW: THE FOLLOWING NON-HAZARDOUS INGREDIENTS ARE PRESENT IN THE PRODUCT AT GREATER THAN 3%:

----- CHEMICAL NAME -----	CAS NUMBER
Water	7732-18-5

CALIFORNIA PROPOSTION 65: No Proposition 65 chemicals known to exist in this product.

CANADIAN WHMIS: THIS MSDS HAS BEEN PREPARED IN COMPLIANCE WITH CONTROLLED PRODUCT REGULATIONS EXCEPT FOR USE OF THE 16 HEADINGS.

CANADIAN WHMIS CLASS: D2B

COMPONENT RCRA CLASSIFICATIONS: Not Applicable.

COMPONENT RCRA CODES: Not Applicable.

CERCLA RQ VALUE (MINIMUM): Not Applicable.

SECTION 16 – OTHER INFORMATION

HMIS RATINGS

HEALTH: 2

FLAMMABILITY: 0

REACTIVITY: 0

3/23/2009, March 23 2009

REASON FOR REVISION: Periodic Review

VOLATILE ORGANIC COMPOUNDS: 0 grams/ltr

LEGEND:

N.A. – NO INFORMATION

N.E. – NOT ESTABLISHED

N.D. – NOT DETERMINED

ABBREVIATIONS: ACGIH = AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS; OSHA = OCCUPATIONAL HEALTH AND SAFETY ADMINISTRATION; TLV-TWA = THRESHOLD LIMIT VALUE – TIME WEIGHTED AVERAGE (8 HOURS); STEL = SHORT-TERM EXPOSURE LIMIT (15 MINUTES); C = CEILING VALUE; PEL = PERMISSIBLE EXPOSURE LIMIT

DISCLAIMER: TO THE BEST OF OUR KNOWLEDGE, THE INFORMATION CONTAINED IN THIS MSDS IS ACCURATE OR IS OBTAINED FROM SOURCES BELIEVED TO BE ACCURATE. HOWEVER, NO LIABILITY, EXPRESSED OR IMPLIED, IS ASSUMED FOR THE ACCURACY OR COMPLETENESS OF THE INFORMATION CONTAINED HEREIN. BUYER ASSUMES LIABILITY IN ITS USE OF THE MATERIAL.