



## MATERIAL SAFETY DATA SHEET

### SECTION 1 - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Cool 2

IDENTIFICATION NUMBER: Cool 2

PRODUCT USE/CLASS: Cooling Fluid

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: 12/03/2013, 03 December 2013

### SECTION 2 - COMPOSITION/INFORMATION ON INGREDIENTS

ITEM	CHEMICAL NAME	CAS NUMBER	WT/WT%			
01	Diethylene Glycol	111-46-6	5.0-10.0			
02	Alkanolamine	TRADE SECRET	1.0- 5.0			
ITEM	ACGIH TLV-TWA	ACGIH TLV-STEL	OSHA PEL-TWA	OSHA PEL - CEILING	COMPANY TLV-TWA	SKIN
01	N.E.	N.E.	N.E.	N.E.	N.E.	No
02	N.E.	N.E.	N.E.	N.E.	5 mg/m3	No

(SEE SECTION 16 FOR ABBREVIATION LEGEND)

### SECTION 3 – HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW: Contact with skin or eyes may cause irritation.

ACUTE EFFECTS – EYE CONTACT: Contact may cause eye irritation.

ACUTE EFFECTS - SKIN CONTACT: Mild irritant. Prolonged contact may cause defatting and redness

ACUTE EFFECTS – INHALATION: Vapors and/or aerosols formed at elevated temperatures can be irritating.

ACUTE EFFECTS - INGESTION: Irritating to mouth, throat and stomach, with nausea.

CHRONIC OVEREXPOSURE EFFECTS: None known.

OTHER INFORMATION: N.A.

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

### SECTION 4 – FIRST AID MEASURES

EYE CONTACT: Immediately flush eyes with plenty of water. Get medical attention, if irritation persists.

SKIN CONTACT: Wash with soap and 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: Swallowing less than an ounce will not cause significant harm. For larger amounts, do not induce vomiting, but give one or two glasses of water to drink and get medical attention.

NOTES TO PHYSICIAN: Treat Symptomatically.

### SECTION 5 – FIRE FIGHTING MEASURES

FLASH POINT: NONE KNOWN

LOWER EXPLOSIVE LIMIT: N/D %

UPPER EXPLOSIVE LIMIT: N/D %

AUTOIGNITION TEMPERATURE: None known

EXTINGUISHING MEDIA: ALCOHOL FOAM, CO<sub>2</sub>, DRY CHEMICAL, FOAM. Do not use water in a full jet.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Does not burn. Extreme heat may cause release of irritating and/or toxic gases or fumes.

SPECIAL FIREFIGHTING PROCEDURES: Does not burn. Must not enter the sewage system.

## SECTION 6 – ACCIDENTAL RELEASE MEASURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Dike or contain spill away from drains, soil, and waterways if safe to do so. Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Contaminated material should be swept or shoveled into appropriate waste container and disposed of in accordance with applicable federal, state and local regulations. Decontaminate or dispose of contaminated clothing and articles.

**Environmental precautions:** Do not allow to enter sewers/ surface or ground water.

## SECTION 7 – HANDLING AND STORAGE

**HANDLING:** Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Avoid contact with skin and eyes.

**STORAGE:** Storage temperature between 10 °C to 30 °C (=50 °F to 86 °F).

In closed original container and at storage temperature of 30 °C (86 °F) maximum product keeps stable for at least 12 months.

## SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** General ventilation usually adequate.

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

**SKIN PROTECTION:** clothing to cover skin. Butyl rubber gloves. Neoprene gloves. Nitrile gloves. PVA gloves. PVC gloves.

**EYE PROTECTION:** Safety glasses.

**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:	103 - 472 F	VAPOR DENSITY:	Is heavier than air
ODOR:	Mild acrid	ODOR THRESHOLD:	No data
APPEARANCE:	Yellowish liquid	EVAPORATION RATE:	Is slower than Butyl Acetate
SOLUBILITY IN H <sub>2</sub> O:	Complete		
FREEZE POINT:	Appr 0 Deg C	SPECIFIC GRAVITY:	1.07
VAPOR PRESSURE:	27.5mmHg@25degC	pH @ 0.0%:	10
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 acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Oxides of carbon. Oxides of nitrogen, ammonia.

HAZARDOUS POLYMERIZATION: Will not occur under normal conditions.

STABILITY: This product is stable under normal storage conditions.

## SECTION 11 – TOXICOLOGICAL PROPERTIES

COMPONENT TOXICOLOGICAL INFORMATION:

CHEMICAL NAME -----LD50----- LC50

Diethylene Glycol.....derm(rbt)11890 ..... Not Applicable

Triethanolamine .....oral(rat)8g/kg ..... Not Applicable

## SECTION 12 – ECOLOGICAL INFORMATION

ECOLOGICAL TEST DATA: None known

## SECTION 13 – DISPOSAL CONSIDERATIONS

DISPOSAL METHOD: If material becomes contaminated, follow disposal instructions for contaminant. Review all current federal, state, and local regulations regarding health and disposal for appropriate disposal procedures. Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

## SECTION 14 – TRANSPORTATION INFORMATION

DOT PROPER SHIPPING NAME: Not regulated in 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: **NONE**

SARA SECTION 313: THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 AND 40 CFR PART 372: **NONE**

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: **NONE**

CALIFORNIA PROPOSTION 65: **NONE**

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

REACH SUBSTANCE(S) OF VERY HIGH CONCERN: Not Applicable.

PRODUCT VOC (CALCULATED): 0 grams/ltr

## SECTION 16 – OTHER INFORMATION

### HMIS RATINGS

HEALTH:0

FLAMMABILITY: 0

REACTIVITY: 0

PREVIOUS MSDS REVISION DATE: February 14, 2011

REASON FOR REVISION: Periodic Review.

VOLATILE ORGANIC COMPOUNDS: N.A.

### 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

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