

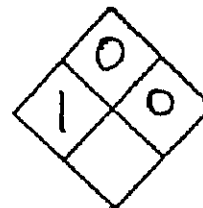


17421 Murphy Avenue, Irvine, CA 92714  
 POLAR CHIP is a registered trademark of Pol.  
 (714) 863-9211

616-364-9987  
 Attn: Betsy  
 From: Neway mfg.

EDDEC 11 1987

MSDS NO.  
 POLAR CUT 405NF



**SECTION 1 PRODUCT IDENTIFICATION**

TRADE NAME POLAR CUT 405NF (new formula)	SYNONYMS Semi synthetic coolant
MANUFACTURER'S NAME POLAR CHIP INC.	REGULAR PHONE NO. 714 863-9211
ADDRESS (NO., STREET, CITY, STATE, ZIP CODE) 17421 Murphy Ave., Irvine, CA 92714	EMERGENCY PHONE NO.

**SECTION 2 INGREDIENTS (LIST ALL)**

MATERIAL OR COMPONENT	CAS NUMBER
Highly refined (carcinogen free) Naphthenic Oil	64741-964
Acid refined Tall Oil	8002-26-4
(Tall Oil-Diethanolamine) Amide	
Diethanolamine salt of C <sub>6</sub> to C <sub>12</sub> Carboxylic acid	693-23-2
Water soluble Diester	68071-19-2
Diethanolamine	111-42-2
4, 4-Dimethloxazolidine	51200-87-4

**SECTION 3 PHYSICAL DATA**

BOILING POINT, 760MM	212°F	MELTING POINT	30°F
SPECIFIC GRAVITY (H <sub>2</sub> O = 1)	1.0	VAPOR PRESSURE	22mm
VAPOR DENSITY (AIR = 1)	0.63	SOLUBILITY IN H <sub>2</sub> O % BY WEIGHT	100%
% VOLATILES BY VOLUME	60%	EVAPORATION RATE (BUTYL ACETATE = 1)	1
APPEARANCE AND ODOR: Amber color with mild odor.			

**SECTION 4 FIRE AND EXPLOSION DATA**

FLASH POINT (TEST METHOD) None TOC	AUTOIGNITION TEMPERATURE 800°F	FLAMMABLE LIMITS IN AIR % BY VOLUME	LOWER --	UPPER --
EXTINGUISHING MEDIA Water, CO <sub>2</sub> , Chemical extinguishers.				
SPECIAL FIRE FIGHTING PROCEDURES Use of chlorinated solvent fire extinguishers should be avoided.				
UNUSUAL FIRE AND EXPLOSION HAZARD Oxides of nitrogen may be generated in a raging fire. Full self-contained breathing apparatus fire protection suits are recommended.				

**MATERIAL SAFETY DATA SHEET**

# MATERIAL SAFETY DATA SHEET

MSDS NO  
POLAR CUT 405L

## SECTION 5 HEALTH HAZARD INFORMATION

HEALTH HAZARD DATA

**INHALATION:** Misting of product on machine tool or splashing.

**SKIN CONTACT:** Through handling of parts after machining.

**SKIN ABSORPTION:** If coolant is in contact with skin for a prolonged time.

**EYE CONTACT:** Splash of coolant on machine tool or transfer to eyes by contaminated hands.

**INGESTION:** Transfer to food by contaminated hands.  
Consumption of food in machining area.

### EFFECTS OF OVEREXPOSURE

**ACUTE:** May irritate skin with prolonged contact.

**CHRONIC:** Not known.

## EMERGENCY AND FIRST AID PROCEDURES

**EYES:** Flush eyes with water or isotonic solution - see physician.

**SKIN:** Rinse off with water - wash with soap and water.

**INHALATION:** Move to clean air - provide ventilation.

**INGESTION:** Give water..

### NOTES TO PHYSICIAN:

Danger to eyes is mostly from infection of eyes after protective eye fluids are removed. Provide anti-infection and local anesthetic solution.

## SECTION 6 REACTIVITY DATA

STABILITY:

STABLE  UNSTABLE

CONDITION TO AVOID:

Substances that react with water.

INCOMPATIBILITY:

Substances that react with water.

HAZARDOUS DECOMPOSITION PRODUCTS:

In a raging fire, oxides of nitrogen may be evolved.

HAZARDOUS POLYMERIZATION:

WILL NOT OCCUR  WILL OCCUR

CONDITIONS TO AVOID:

A raging fire.

MATERIAL SAFETY DATA SHEET

MEDS NO.  
POLAR CUT 405L

SECTION 7 SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED Mop up or use dry absorbents.

NEUTRALIZING CHEMICALS:

WASTE DISPOSAL METHOD: May be disposed of according to local, state, and federal regulations.

SECTION 8 SPECIAL PROTECTION INFORMATION

VENTILATION REQUIREMENTS: Material does not give off hazardous vapors. If work conditions generate mist, ventilation (100 linear feet/minute) is recommended.

SPECIFIC PERSONAL PROTECTIVE EQUIPMENT  
RESPIRATORY (SPECIFY IN DETAIL): Face respirator is not required. If a mist is being formed by working conditions supply ventilation.

EYE: Goggles or face shield, if needed. GLOVES: Plastic or rubber if needed.

OTHER CLOTHING AND EQUIPMENT: None required

SECTION 9 TRANSPORTATION DATA

HAZARDOUS CHARACTERISTICS

CORROSIVE       FLAMMABLE LIQUID       FLAMMABLE SOLIDS       EXPLOSIVES

OXIDIZER       POISON       MAGNETIC       NON-FLAMMABLE GAS

FLAMMABLE GAS       RADIOACTIVE       NONE       OTHER \_\_\_\_\_

D.O.T. CLASSIFICATION Class 60      FLASH POINT °C °F

DO NOT WRITE BELOW THIS LINE

ARTICLE NO.	LABEL(S)	PACKAGING		NET QUANTITIES	
		EXCEPTIONS	SPEC. REQ'T.	PASSENGER	CARGO

COMMENTS:

# MATERIAL SAFETY DATA SHEET

MSDS NO.
POLAR CUT 405L

## SECTION 10 SPECIAL PRECAUTIONS

**STORAGE:**

OUTDOOR STORAGE PERMITTED (if above 32°F)
  INDOOR STORAGE REQUIRED - NO TEMP. CONTROL
  STORE UNDER CONTROLLED TEMP. X RANGE 30°F TO 120°F °F

**HANDLING:** Good housekeeping and prudent care will be sufficient to avoid problems.

**OTHER:**

**PREPARED BY:**

Keith R. Whitcomb

**TITLE**

Chief Chemist

**DATE**

March 19, 1986

**ADDRESS**

17421 Murphy Ave., Irvine, CA 92714