



PPS PACKAGING COMPANY

3189 E. Manning Ave. • P.O. Box 427 • Fowler, CA 93625-0427

Phone (559) 834-1641 • Fax (559) 834-2011

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	MEK
APPLICATION(S):	Adhesive used to bond various cooler products together within the evaporative cooler unit.
CHEMICAL NAME:	Methyl Ethyl Ketone
PPS PART NUMBER(S):	81592, 82002, 82202, 82122, 82132, 82142, 82152, 82162
MANUFACTURED FOR PPS PACKAGING BY:	IPS Corporation 17109 South Main Street Carson, CA 90248-3127 P.O. Box 379, Gardena, CA 90247-0379 Phone - (310) 989-3300
EMERGENCY PHONE:	1-800-451-8346

SECTION 2: HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:	Danger! Extremely flammable liquid and vapor; vapor may cause a flash fire. Harmful or fatal if swallowed, inhaled or absorbed through skin. Affects central nervous system and causes irritation to the skin, eyes and respiratory tract.
ROUTES OF ENTRY:	May enter body through skin, mouth or eyes
<u>POTENTIAL HEALTH EFFECTS</u>	
EYES:	Vapors are irritating to the eyes; splashes can produce painful irritation and eye damage.
SKIN:	Causes irritation to skin; symptoms include redness, itching and pain. May be absorbed through the skin with possible systemic effects.
INGESTION:	May produce abdominal pain and nausea. Aspiration into lungs can produce severe lung damage and is a medical emergency; other symptoms expected to parallel inhalation.
INHALATION:	Causes irritation to the nose and throat. Concentrations above the TLV may cause headache, dizziness, nausea, shortness of breath, and vomiting; higher concentrations may cause central nervous system depression and unconsciousness.
CHRONIC HEALTH HAZARDS:	Prolonged skin contact may defeat the skin and produce dermatitis; chronic exposure may cause central nervous system effects.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:	Persons with pre-existing skin disorders, eye problems or impaired respiratory functions may be more susceptible to the effects of the substance.
CARCINOGENICITY:	None
TERATOGENICITY:	Not determined
MUTAGENICITY:	Not determined

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT:	CAS NO.	% WT	ACGIH	ACGIH STEL	ACGIH PEL	OSHA STEL
Methyl Ethyl Ketone	78-93-3	54-71	200 ppm	300 ppm	200 ppm	-

SECTION 4: FIRST AID MEASURES

INHALATION:	Remove to fresh air; if not breathing, give artificial respiration. If breathing is difficult, give oxygen; get medical attention immediately.
INGESTION:	Aspiration hazard; if swallowed, vomiting may occur spontaneously, but do not induce. Give 1 or 2 glasses of water or milk in order to dilute ingested chemical. If vomiting occurs, keep head below hips to prevent aspiration to the lungs; never give anything by mouth to an unconscious person. Call a physician immediately.
SKIN:	Immediately wash skin with plenty of soap and water for at least 15 minutes while removing contaminated clothing and shoes; get medical attention immediately. Wash clothing before reuse; thoroughly clean shoes before reuse.
EYES:	Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally; get medical attention immediately.

SECTION 5: FIRE FIGHTING MEASURES

NFPA HAZARD CLASSIFICATION:	Health: 3	Flammability: 3	Reactivity: 0
EXTINGUISHING MEDIA:	To extinguish, use carbon dioxide (CO ₂), foam or dry chemicals. Water spray must be used to keep fire exposed containers cool, dilute spill to nonflammable mixtures, protect personnel attempting to stop leak, and disperse vapors.		
SPECIAL FIRE FIGHTING PROCEDURES:	In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with a full-face piece operated in the pressure demand or other positive pressure mode. This highly flammable liquid must be kept from sparks, open flame, hot surfaces, and all sources of heat and ignition.		
UNUSUAL FIRE AND EXPLOSION HAZARDS:	Above flash point, vapor-air mixtures are explosive with flammable limits noted above. Vapors can flow along surfaces to distant ignition source and flash back. Contact with strong oxidizers may cause fire. Sealed containers may rupture when heated; sensitive to static charge.		
SECTION 5 NOTES:	MEK is extremely flammable		

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES:	Ventilate area where leak or spill has taken place; remove all sources of ignition from the area. Wear appropriate personal protective equipment as specified in Section 8 of this document. Isolate the hazardous area and keep unnecessary and unprotected personnel from entering. Contain and recover liquid when possible; use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e.g., vermiculite, dry sand, earth) and place in a chemical waste container. Do not use combustible materials, such as saw dust; do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors in order to protect personnel attempting to stop leak and to flush spill away from exposures. Use regulation (CERCLA) required reporting for spills and releases to soil as well as water and air in excess of reportable quantities. The toll free number for the U.S. Coast Guard national response center is (800) 424-8802.
-------------------------------------	---

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: Protect product against physical damage. Store in a cool, dry well-ventilated location away from any area where the fire hazard may be acute; outside or detached storage is preferred, separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be no smoking areas; use non-sparking tools and equipment, including explosion-proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors and liquids); observe all warnings and precautions listed for the product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

VENTILATION: A system of local and/or general exhaust is recommended to keep employee exposures below the airborne exposure limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, "Industrial Ventilation, a Manual of Recommended Practices" (the most recent edition) for details. Use explosion-proof equipment.

RESPIRATORY PROTECTION: If the exposure limit is exceeded and engineering controls are not feasible, a full-face piece respirator with an organic vapor cartridge may be worn up to 50 times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier (whichever is lowest). For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator.

WARNING: air purifying respirators do not protect workers in oxygen-deficient atmospheres.

EYE PROTECTION: Use chemical safety goggles and/or full-face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

SKIN PROTECTION: Wear impervious protective clothing, including boots, gloves, lab coat, apron, or coveralls, as appropriate, to prevent skin contact. Butyl rubber is a suitable material for personal protective equipment.

WORK HYGIENIC PRACTICES: Avoid prolonged or repeated contact; do not breathe vapors. Wash contaminated clothing prior to reuse.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE/PHYSICAL STATE: Liquid

COLOR: Clear/Colorless

ODOR: Ketone

ODOR THRESHOLD: 5.4 ppm

pH: Not applicable

MELTING/FREEZING POINT: Melting: 86° C (-187° F)

BOILING POINT AND RANGE: 80° C (176° F)

FLASH POINT: -9° C (16° F)

EVAPORATION RATE: > 1.0

FLAMMABILITY: Category 2

UPPER/LOWER FLAMMABILITY OR EXPOSURE LIMITS: LEL: 1.4%
UEL: 11.4%

VAPOR PRESSURE: 78 mmHg at 20° C (68° F)

VAPOR DENSITY:	> 2
RELATIVE DENSITY:	Not determined
SOLUBILITY:	29 G in 100 G of water
AUTO-IGNITION TEMPERATURE:	515° C (959° F)
DECOMPOSITION TEMPERATURE:	Not applicable

SECTION 10: STABILITY AND REACTIVITY

REACTIVITY:	Not determined
STABILITY:	Stable under ordinary conditions of use and storage
HAZARDOUS REACTIONS:	Not determined
CONDITIONS TO AVOID:	Heat, flames, ignition sources, and incompatible materials
INCOMPATIBLE MATERIALS:	Oxidizing materials, caustics, amines, ammonia, strong bases, chloroform, chlorosulfonic acid, oleum, potassium-t-butoxide, heat or flame, hydrogen peroxide, and nitric acid. MEK can attack many plastics, resins and rubber.
HAZARDOUS DECOMPOSITION PRODUCTS:	Carbon Dioxide (CO ₂) and Carbon Monoxide (CO) may form when heated to decomposition.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION:	LD50 - Oral: 2737 mg/kg (Rat), Dermal: 6480 mg/kg (Rabbit) LC50 - Inhalation 8 hrs.: 23500 mg/m ³ (Rat)
-----------------------------------	---

SECTION 11 NOTES: Has shown teratogenic effects in laboratory animals

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION:	When released into soil, this material may leach into groundwater or it may evaporate to a moderate extent. When released into water, MEK may biodegrade or evaporate to a moderate extent. When released into water, this material is expected to have a half-life between 10 and 30 days. This material is not expected to significantly bioaccumulate. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals. When released into the air, this material is expected to have a half-life between 1 and 10 days.
BIOACCUMULATION:	Minimal to none
BIODEGRADABILITY:	Biodegradable
MOBILITY:	In normal use, emission of volatile organic compounds (VOC's) to the air takes place, typically at a rate of ≤ 490 g/l.

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD:	Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. Dispose of container and unused contents in accordance with Federal, State and Local requirements.
-------------------------------	---

SECTION 14: REGULATORY INFORMATION

PRECAUTIONARY LABEL INFORMATION:	Highly Flammable, Irritant
---	----------------------------

SYMBOLS: F, Xi

RISK PHRASES: R11: Highyl flammable
R20: Harmful by inhalation
R36/37: Irritating to eyes and respiratory system
R66: Repeated exposure may cause skin dryness or cracking
R67: Vapors may cause drowsiness and dizziness

SAFETY PHRASES: S9: Keep container in a well-ventilated place
S16: Keep away from sources of ignition - No smoking
S25: Avoid contact with eyes
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S33: Take precautionary measures against static discharges
S46: If swallowed, seek medical advise immediately and show this container or label

INGREDIENT LISTINGS: USA TSCA, Europ EINECS, Canada DSL, Australia AICS, Korea ECL/TCCL, Japan MITI (ENCS)

SECTION 15: OTHER INFORMATION

PREPARATION INFORMATION: The information contained herein is based on the data available to PPS Packaging and is believed to be accurate; however, PPS Packaging makes no warranty, expressed or implied, regarding the accuracy of this data or the results to be obtained from the use thereof.

DATE PREPARED: 12/13/2013

DATE REVISED: 1/31/2014

DISCLAIMER: The conditions or methods of handling, storing, using, and disposing of this product are beyond PPS Packaging's control and may be beyond their knowledge. For this reason, they do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storing, using, or disposing of this product.