



Material Safety Data Sheet

SECTION 1: PRODUCT AND SUPPLIER

PRODUCT NAME: BLACK MEK INK

SUPPLIER: CITRONIX
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SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENT</u>	<u>Percent</u>	<u>ACGIH – TLV</u>	<u>OSHA - PEL</u>	<u>CAS NUMBER</u>
Methyl Ethyl Ketone	82.00	200 PPM	200 PPM	78-93-3
PM Solvent	8.00	50 PPM	50 PPM	107-98-2

SECTION 3: HAZARDS IDENTIFICATION

Eye Irritating to the eyes causing a burning sensation, redness, swelling and/or blurred vision.

Skin Prolonged or repeated skin contact can cause defatting and drying of the skin which may result in a burning sensation and a dried, cracked appearance.

Swallowing May be harmful if swallowed. Liquid can directly enter the lungs (aspiration) when swallowed or vomited. Serious lung damage and possibly fatal chemical pneumonia (chemical pneumonitis) can develop if this occurs.

Inhalation Vapors may be irritating to respiratory system. Breathing of high vapor concentrations may cause central nervous system (CNS) depression resulting in dizziness, light-headedness, headache, nausea, and loss of coordination. Continued inhalation may result in unconsciousness and death.

Other Health Effects May enhance the toxicity of other hydrocarbon solvents. Refer to Section 11.

Primary Route(s) of Entry Inhalation, skin absorption, skin contact, eye contact, ingestion.

SECTION 4: FIRST AID MEASURES

Eyes Flush eyes with large amounts of water for at least 15 minutes, by the clock, while holding eyelids open. Rest eyes for 30 minutes.

Skin Flush exposed area with water and follow by washing with soap if available.

Swallowing DO NOT induce vomiting. Have victim rinse mouth out with water, then drink sips of water to remove taste from mouth. DO NOT GIVE LIQUIDS TO A DROWSY, CONVULSING OR UNCONSCIOUS PERSON. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. Transport to nearest medical facility for additional treatment.

Inhalation Move victim to fresh air. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point	23 F (-5 C)
Flammability in Air	1.8 – 11.5% volume
Extinguishing Media	Use water fog, 'alcohol foam', dry chemical or carbon dioxide (CO ₂) to extinguish flames.
Fire Fighting Instructions	FLAMMABLE. Clear fire area of all non-emergency personnel. Do not enter confined fire space without full bunker gear (helmet with face shield, bunker coats, gloves and rubber boots), including a positive pressure, NIOSH approved, self-contained breathing apparatus. Containers exposed to intense heat from fires should be cooled with large quantities of water to prevent weakening of container structure, which could result in container rupture.
Unusual Fire Hazards	Vapors are flammable and heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger.

SECTION 6: ACCIDENTAL RELEASE MEASURES

FLAMMABLE	Vapors are flammable and heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger.
Protective Measures	Evacuate area of unprotected personnel. Eliminate potential sources of ignition (no smoking, flares, sparks, or flames in immediate area). Stay upwind and keep out of low areas. Handling equipment must be bonded and grounded to prevent sparking. Wear appropriate personal protective equipment (refer to Section 8) when responding to spills.
Spill Management	Monitor area with combustible gas indicator. Shut off source of leak if safe to do so. Dike and contain spill. Use water spray (fog) to reduce vapors or divert vapor cloud drift. If vapor cloud forms, use water fog to suppress or blanket spill area with foam. Remove with vacuum trucks or pump to storage/salvage vessels. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly. Prevent entry into waterways, sewer, basements or confined areas. For small spills: Soak up residue with an absorbent such as clay, sand or other suitable material. Place in non-leaking container and seal tightly for proper disposal.
Disposal	Proper disposal should be evaluated based on regulatory status of this material (refer to Section 13), potential contamination from subsequent use and spillage, and regulations governing disposal in the local area.

SECTION 7: HANDLING AND STORAGE

Handling	<p>Do not taste or swallow. Avoid contact with eyes, skin and clothing. Wash thoroughly after handling.</p> <p>Surfaces that are sufficiently hot may ignite liquid material. Vapors are flammable and heavier than air. Vapors may travel across the ground and reach remote ignition sources causing a flashback fire danger.</p> <p>Keep away from heat, sparks and flame. Extinguish pilot lights, cigarettes and turn off other sources of ignition prior to use and until all vapors have dissipated. Use explosion-proof ventilation to prevent vapor accumulation while in use. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Air dry contaminated clothing in a well ventilated area before laundering. Static electricity may accumulate and create a fire hazard. Bond and ground handling equipment and transfer containers to prevent sparking.</p>
Storage	Keep containers closed when not in use. Use ground fixed equipment.
Container Warnings	Containers, even those that have been emptied, can contain explosive vapors. Do not cut, drill, grind, weld or perform similar operations on or near containers.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Eye Protection	Chemical goggles, if liquid contact is likely, or safety glasses.
Skin Protection	Wear resistant gloves such as: neoprene, nitrile rubber, to prevent repeated or prolonged skin contact, wear impervious clothing and boots.
Respiratory Protections	If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, and approved respirator must be worn. Respirator selection, use and maintenance should be in accordance with the requirements of the OSHA Respiratory Protection Standard, 29 CFR 1910.134.
Engineering Controls	Provide sufficient mechanical (general and/or local exhaust) ventilation to main exposure below TLV(s).

SECTION 9: PHYSICAL AND CHEMICAL CHARACTERISTICS

Boiling Point:	175 F	Vapor Pressure:	70.9 mmHg
Vapor Density:	2.5 @ AIR=1	Specific Gravity:	.81
Flammability in Air:	1.8 – 11.5% volume	Solubility (in water)	Miscible
VOC:	35.43 GMS/Liter	Flash Point:	23 F (Closed Cup)
Auto Ignition:	858 F	Appearance:	Mobile, Liquid
Melting Point:	-121 F	Color:	Clear

SECTION 10: STABILITY AND REACTIVITY

Stability	Material is stable under normal conditions.
Conditions to Avoid	Prevent vapor accumulation. Avoid heat, sparks, open flames and other ignition sources.
Materials to Avoid	Strong acids, strong bases. Avoid contact with strong oxidizing agents.
Hazardous Decomposition Products	Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases, including carbon monoxide, carbon dioxide and other organic compounds will be evolved when this material undergoes combustion or thermal oxidative degradation.

SECTION 11: TOXICOLOGICAL INFORMATION

	Acute Toxicity	
Material Tested	Effects	Test Results
Methyl Ethyl Ketone	Dermal – LD50	>5 g/kg (rabbit)
Methyl Ethyl Ketone	Inhalation – LC50	>5,000 ppm (v) (Rat) 8 hour(s)
Methyl Ethyl Ketone	Oral – LD50	2.9 g/kg (Rat)
Eye Irritation	Minimal to severe (Rabbit)	
Skin Irritation	Slight erythema (Rabbit 24 hours)	
Reproductive and Development Toxicity	Methyl ethyl ketone been shown to cause developmental effects (delayed ossification) to the fetuses when female pregnant rats were exposed to vapors of 3,000 ppm, fifteen times the occupational exposure limit.	
Other Information	Methyl ethyl ketone may shorten the time of onset of liver and kidney toxicity of haloalkane solvents and peripheral neuropathy caused by materials such as n-hexane or methyl n-butyl ketone. However, MEK alone has not been shown to cause peripheral neuropathy.	

SECTION 12: ECOLOGICAL INFORMATION

No data

SECTION 13: DISPOSAL CONSIDERATION

Waste Disposal	Dispose of in accordance with all local, state, and federal regulations.
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SECTION 14: TRANSPORT INFORMATION

US Department of Transportation Classification

Proper Shipping Name	Printing Ink
Identification Number	UN1210
Hazard Class/Division	3 (Flammable Liquid)
Packing Group	II
Hazardous Substance/Material RQ:	Methyl Ethyl Ketone/5000 lbs
Emergency Response Guide Number	27

International Air Transportation Association Classification

Proper Shipping Name	Printing Ink
Identification Number	UN1210
Hazard Class/Division	3 (Flammable Liquid)
Packing Group	II

International Maritime Organization – IMDG

Proper Shipping Name	Printing Ink
Identification Number	UN1210
Hazard Class/Division	3 (Flammable Liquid)
Packing Group	II

SECTION 15: REGULATORY INFORMATION

The regulatory information provided is not intended to be comprehensive. Other federal, state and local regulations may apply to this material.

Comprehensive Environmental Release, Compensation and Liability Act (CERCLA)	Methyl Ethyl Ketone	RQ 5000 lbs
	Reportable Spill =>	5000 lbs or 740 gal
Resource Conservation and Recovery Act (RCRA) Classification	D001 (ignitable hazardous waste). D035 (Toxicity, Methyl Ethyl Ketone > 200mg/l)	
Superfund Amendment and Reauthorization Act (SARA) Title III	SARA Hazard Categories (311/312) Fire hazard, Immediate (acute) health hazard	

	SARA Toxic Release Inventory (TRI) (313)
	Methyl Ethyl Ketone (78-93-3) 100% weight
Toxic Substances Control Act (TSCA) Inventory Status	This material is listed on the EPA TSCA Inventory of Chemical Substances.

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections of the MSDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropriate agency in your state.

New Jersey RTK Label Information	Methyl Ethyl Ketone	78-93-3
Pennsylvania RTK Label Information	Methyl Ethyl Ketone	78-93-3
HMIS Rating (Health, Fire, Reactivity)	2, 3, 0	
NFPA Rating (Health, Fire, Reactivity)	1, 3, 0	

SECTION 16: OTHER INFORMATION

All information, recommendations, and suggestions appearing herein concerning this product are based upon data obtained from the manufacturer and/or recognized technical sources; however, Citronix makes no warranty, representation, or guarantee as to the accuracy, sufficiency, or completeness of the material set forth herein. It is the user's responsibility to determine the safety, toxicity and suitability of his/her own use, handling and disposal of the product. Additional product literature may be available upon request. Since actual use by others is beyond our control, no warranty, express or implied, is made by Citronix as to the effects of such use, the results to be obtained or the safety and toxicity of the product, nor does Citronix assume any liability arising out of use by others of the product referred to herein. The data in this Material Safety Data Sheet relates only to the specific material designated herein and does not relate to use in combination with any other material or in any process.