

SECTION – 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME	Methyl Ethyl Ketone	PRODUCT USE	Solvent	BLN	KET5002
COMPANY NAME	Buckley Oil Company	Office	(214) 421-4147		
	2900 Kemp Ranch Crossing	Fax	(214) 428-4566		
	Midlothian TX 76065	Web	www.buckleyoil.com		
	EMERGENCY TELEPHONE NUMBER	INFOTRAC	(800) 535-5053		

SECTION – 2 HAZARDS INFORMATION

Physical Hazards **FLAMMABLE LIQUIDS-Category 2**
Health Hazards **EYES-Category 2A; STOT SINGLE EXPOSURE-Category 3**



Flammables


 Irritant (eye)
 Narcotic Effects
 Respiratory Tract Irritant

DANGER! Highly flammable liquid and vapor, Vapors may cause flash fire, Keep away from heat, sparks, open flames or hot surfaces Causes serious eye irritation, May cause skin irritation, Harmful if inhaled, Harmful if swallowed, May cause respiratory irritation and/or drowsiness or dizziness, Do not get in eyes, on skin, or clothing, and avoid inhalation, Do not smoke, eat or drink while using, Use proper Safety Equipment, Wash thoroughly after handling, Avoid release into the environment

SECTION – 3 COMPOSITION INFORMATION

(Exact percentage of the listed chemicals of composition has been withheld as a trade secret)

<u>CHEMICAL NAME</u>	<u>COMMON NAME AND SYNONYMS</u>	<u>CAS #</u>	<u>IMPURITIES</u>	<u>PERCENT</u>
Methyl Ethyl Ketone	2-Butanone, Ethyl methyl ketone	78-93-3		100%

SECTION – 4 FIRST AID MEASURES

EYE CONTACT Immediately flush eyes with cold water for at least 15 minutes while lifting upper and lower eyelids, Remove contact lenses if present and easy to do without injury to the eye and continue rinsing, If irritation persists obtain immediate medical attention, preferably from an ophthalmologist

SKIN CONTACT Immediately wash contaminated skin with a nonabrasive soap and plenty of water for at least 15 minutes, Remove any contaminated clothing and wash before reuse, If irritation is present or occurs obtain medical attention

INHALATION Move person to fresh air, if they have problem breathing, show signs of overexposure or feel unwell obtain medical attention

INGESTION DO NOT INDUCE VOMITING. If person is fully conscious, rinse mouth out water. Contact a physician or poison control center immediately. If vomiting occurs, keep head below hips to prevent aspiration into the lungs

Aspiration Hazard Not considered to be an aspiration hazard, Can be harmful if swallowed and enters airways

ACUTE SYMPTOMS OF SINGLE OVEREXPOSURE

Eyes Can cause serious eye irritation, discomfort, redness, tearing, or pain, by direct product contact, mist or vapors

Skin May cause skin irritation, redness, drying or cracking

Inhalation Harmful if inhaled, Mist, vapor or fumes may cause, irritation to respiratory tract, headache, dizziness, drowsiness

Ingestion Harmful if swallowed, May affect target organs, Can cause central nervous system depression

CHRONIC SYMPTOMS OF PROLONGED OR REPEATED OVEREXPOSURE

Eyes Causes serious eye irritation, redness, tearing, or pain, by direct product contact, mist or vapors

Skin Can cause skin irritation, defatting of the skin which can lead to dermatitis, Skin absorption may affect, peripheral nervous systems

Inhalation Harmful if inhaled, Mist, vapor or fumes may cause, irritation to respiratory tract, dizziness, drowsiness, fatigue, central nervous system depression, and may affect target organs

Ingestion Harmful if swallowed, Can cause central nervous system depression, Can be harmful if swallowed and enters airways, May affect target organs, liver, kidneys, respiratory system

SECTION – 5 FIRE FIGHTING MEASURES

Extinguishing Media	SUITABLE Use DRY chemicals, CO2, alcohol foam. Water spray to cool or protect exposed materials UNSUITABLE Avoid using a water stream. Product will float upon water and could spread any fire
Hazardous Decomposition	Burning or thermal decomposition can produce, carbon monoxide, carbon dioxide, and other toxic fumes
Reactive With	Reactive with, strong oxidizing agents
Explosion Hazards	May explode if ignited in an enclosed area. Flashback along vapor trail may occur
Static Discharge	Expected to ignite product
Mechanical Impact	Not expected to ignite product
Protective Equipment	Use MSHA/NIOSH approved self-contained breathing apparatus and full protective gear

FLAMMABLE LIQUIDS HAZARD CLASSIFICATION

Criteria Flash point < 23°C (73°F) and initial boiling point > 35°C (95°F)
 NFPA Class I B
 GHS Category 2
 WHMIS Class B-2

NFPA HAZARD RATINGS

Health 2
 Flammability 3
 Reactivity 0
 Personal Protection FBG

**SECTION – 6 ACCIDENTAL RELEASE MEASURES**

Emergency Procedures	Warn personnel to move away and stay upwind from spill
Personal Precautions	Eliminate ignition sources and ventilate area
Protective Equipment	Safety Glasses, Chemical Gloves, Approved Respirator, Chemical Apron and Rubber Boots
Containment	Cover or dike any floor drains with an inert material to prevent product from entering the environment or spreading
Clean Up Procedures	Use sand or inert non-combustible absorbent pads or material and place in a chemical waste disposal container
Disposal	Dispose of material in accordance with all State and Federal Guidelines and Regulations

SECTION – 7 HANDLING AND STORAGE

Handling	DANGER, FLAMMABLE LIQUID, Keep away from incompatible materials, heat, sparks, electrical equipment, fire and all ignition sources, Use appropriate safety equipment, and adequate ventilation, Avoid eye and skin contact, Avoid inhalation of mist, vapors or fumes, May cause respiratory irritation and/or drowsiness or dizziness, Harmful if inhaled, Harmful if swallowed, Do not smoke, eat or drink while using, Wash thoroughly after handling, Avoid release to the environment, Avoid free fall of liquid, Ground containers when transferring, Empty containers are very hazardous, Do not flame cut, saw or drill. Refer to NFPA-704 and/or API RP 2003 for specific bonding/grounding requirements
Storage	Keep container closed when not in use, Store in a well-ventilated area and away from incompatible materials, Store away from heat, sparks, open flames or hot surfaces, Vapors may spread long distances and ignite explosively, Store below 49°C (120°F) and in accordance with Class 1B Flammable Liquids (GHS Category 2)
Incompatible Materials	Incompatible with, strong oxidizing agents

SECTION – 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**EXPOSURE LIMITS**

CHEMICAL NAME	ACGIH (TWA 8)	ACGIH (STEL)	OSHA PEL (TWA 8)	OSHA (CEIL)	Significant Exposure
Methyl Ethyl Ketone	200 ppm	300 ppm	200 ppm (590 mg/m ³)	300 ppm (885 mg/m ³)	RT,CNS,PNS

PERSONAL PROTECTIVE EQUIPMENT

Chemical Safety Glasses,
Goggles or Face Shield



Impervious
Chemical Gloves



MSHA / NIOSH
Approved Respirator
At or Above Listed TLV's



Impervious
Protective Clothing



Eye Wash and
Safety Shower
(Recommended)

**Ventilation**

Ventilate to keep vapors of this material below the lowest ppm listed above. If over TLV, in accordance with 29 CFR 1910.134, use a MSHA / NIOSH approved positive-pressure self-contained breathing apparatus

"Consulting with a Safety Equipment Supplier is recommended"

HMIS HAZARD RATINGS

Health 2
 Flammability 3
 Reactivity 0
 Personal Protection H



SECTION – 9 PHYSICAL AND CHEMICAL PROPERTIES

Flash Point	-3 °C (27 °F) TAG Closed Cup	Specific Gravity / Relative Density	0.805
Flammable Limits	Lower: 1.8%, Upper: 11.5%	Molecular Weight	72.11
Auto-Ignition Temp.	515°C (959°F)	Viscosity	0.53 mm ² /s
Physical State	Liquid	Boiling Range	79.64°C (175.35°F)
Appearance	Clear	Vapor Pressure	71 mmHg at 20 °C (68 °F)
Odor	Characteristic	Vapor Density	2.4 at 20°C (68°F)
Odor Threshold	ND	Freeze Point	-87 °C (-125 °F)
Solubility	27.5 g/100ml	Melting Point	ND
Volatiles	100%	Partition Coefficient	ND
VOC	100%	Decomposition Temperature	ND
pH (± 0.3)	NA	Evaporation Rate	3.7 (nBuAc=1)

SECTION – 10 STABILITY AND REACTIVITY

Reactivity (Specific Test Data)	None available
Chemical Stability	Stable when stored below 49°C (120°F)
Hazardous Polymerization	Will not occur
Conditions To Avoid	Heat sources, sparks, flame or static discharge and incompatible materials
Incompatible Materials	Incompatible with, strong oxidizing agents
Thermal Decomposition	Burning or thermal decomposition can produce, carbon monoxide, carbon dioxide, and other toxic fumes

SECTION – 11 TOXICOLOGICAL INFORMATION**ROUTES OF EXPOSURE**

Eyes (Yes), Skin (Yes), Ingestion (Yes), Inhalation (Yes "Mist, Vapor or Fumes")

ACUTE SYMPTOMS OF SINGLE OVEREXPOSURE

Eyes	Can cause serious eye irritation, discomfort, redness, tearing, or pain, by direct product contact, mist or vapors
Skin	May cause skin irritation, redness, drying or cracking
Inhalation	Harmful if inhaled, Mist, vapor or fumes may cause, irritation to respiratory tract, headache, dizziness, drowsiness
Ingestion	Harmful if swallowed, May affect target organs, Can cause central nervous system depression

CHRONIC SYMPTOMS OF PROLONGED OR REPEATED OVEREXPOSURE

Eyes	Causes serious eye irritation, redness, tearing, or pain, by direct product contact, mist or vapors
Skin	Can cause skin irritation, defatting of the skin which can lead to dermatitis, Skin absorption may affect, peripheral nervous systems
Inhalation	Harmful if inhaled, Mist, vapor or fumes may cause, irritation to respiratory tract, dizziness, drowsiness, fatigue, central nervous system depression, and may affect target organs
Ingestion	Harmful if swallowed, Can cause central nervous system depression, Can be harmful if swallowed and enters airways, May affect target organs, liver, kidneys, respiratory system

Acute Tox Calculated **Oral:** 2,100 mg/kg **Dermal:** 2,100 mg/kg **Inhaled:** 14.7 mg/L

Acute Tox Category "Not applicable (Oral > 2,000 mg/kg)", "Not applicable (Dermal > 2,000 mg/kg)", Category 4 (Inhaled >10, ≤20 mg/L) Vapors

Additional Info NOTE: Intentional misuse by deliberately concentrating and inhaling this product can be harmful or fatal, NOTE: High pressure skin injections are SERIOUS MEDICAL EMERGENCIES. The injury may not appear serious at first, but within a few hours tissues will become swollen, discolored and extremely painful

Target Organs Kidneys, Liver, Eyes (Lens or cornea), Skin, Peripheral Nervous System, Central Nervous System, Upper Respiratory Tract

Medical Conditions Preexisting, eye, skin, liver, kidney, central nervous system, respiratory, peripheral nervous system, disorders may be aggravated by exposure to this product

Notes to Physician In case of ingestion, gastric lavage with activated charcoal can be used promptly to prevent absorption, In case of skin injection, prompt debridement of the wound is necessary to minimize necrosis and tissue loss

CARCINOGENIC – This product contains concentrations above 0.1% of the following:

<u>CHEMICAL NAME</u>	<u>NTP</u>	<u>ACGIH</u>	<u>IARC</u>	<u>GHS Category</u>
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None Listed

MUTAGENIC AND REPRODUCTIVE EFFECTS – May cause fetal and reproductive abnormalities.

<u>CHEMICAL NAME</u>	<u>Germ Cell Mutagenicity</u>	<u>Toxic to Reproduction</u>
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None Listed

COMPONENTS ACUTE TOXICITY

<u>CHEMICAL NAME</u>	<u>Type</u>	<u>Form</u>	<u>Subject</u>	<u>Result Value</u>	<u>Exposure Time</u>	<u>GHS Category</u>
Methyl Ethyl Ketone	LD50	Oral	Rat	>2000 mg/kg		(>2000 mg/kg)
	LD50	Dermal	Rabbit	>2000 mg/kg		(>2000 mg/kg)
	LD50	Inhaled	Rat	14.75 mg/L	4 Hours (Vapor)	4 (>10, ≤20 mg/L)

SECTION – 12 ECOLOGICAL INFORMATION

<u>CHEMICAL NAME</u>	<u>Type</u>	<u>Subject</u>	<u>Subject Latin</u>	<u>Result Value</u>	<u>Exposure Time</u>	<u>GHS Category</u>
Methyl Ethyl Ketone	LD50	Fish	(Unknown Species)	> 1000 mg/L		4 (>100 mg/L)
Presistence And Degradability	This product is inherently biodegradable according to the OECD definition, Based on similar materials, this product will have a significant tendency to partition to air					
Bioaccumulative Potential	There is no evidence to suggest bioaccumulation will occur					
Mobility In Soil	This material is a mobile liquid					
Other Adverse Effects	No data available					

SECTION – 13 DISPOSAL CONSIDERATIONS

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER

Dispose of any waste in accordance with all State and Federal Guidelines and Regulations

ENVIRONMENTAL FATE

This material as supplied, when discarded or disposed of, is a hazardous waste according to Federal Regulations (40 CFR 261) due to its ignitability and due to the composition containing in some or all of its components.

Under RCRA rules, it is the responsibility of the user of the product to determine, at the time of disposal, whether the material is a hazardous waste.

The transportation, storage, treatment and disposal of RCRA waster material must be conducted in compliance with 40 CFR 262, 263, 264 and 270. Disposal can only occur in properly permitted facilities.

Chemical additions, processing or otherwise altering this material may make the waste management information presented in this SDS incomplete, inaccurate, or otherwise inappropriate.

SECTION – 14 TRANSPORT INFORMATION**D.O.T. CLASSIFICATION**

<u>UN Number</u>	<u>Proper Shipping Name</u>	<u>n.o.s. (Chemicals) or "Limits"</u>				
UN 1193	Methyl Ethyl Ketone					
<u>Hazard Class</u>	<u>Packing Group</u>	<u>Label Codes</u>	<u>Reportable Quantity (lbs)</u>	<u>Response Code</u>	<u>Marine Pollutant</u>	
3	II	Flammable Liquids	5000	127	No	
<u>Placard Label</u>	<u>Hazard Label</u>	<u>Secondary</u>				



SECTION – 15 REGULATORY INFORMATION**TSCA**

CHEMICAL NAME	Sec 8(b) Inventory	Sec 8(d) Health And Safety	Sec 4(a) Chemical Test Rules	Sec 12(b) Export Notification
Methyl Ethyl Ketone	Yes			

REPORTABLE QUANTITIES

CHEMICAL NAME	Extremely Hazardous		Reportable Quantity	Emission Reporting		
	EPCRA TPQ Sec 302	EPCRA RQ Sec 304	CERCLA RQ Sec 103	TRI Sec 313	RCRA Code	RMP TQ Sec 112r
Methyl Ethyl Ketone			5000		U159	

SARA

CHEMICAL NAME	Section 311			Section 311 / 312 Hazards			
	Hazardous Chemical	Acute	Chronic	Flammable	Pressure	Reactive	
Methyl Ethyl Ketone	Yes	Yes	Yes	Yes			

RIGHT TO KNOW

CHEMICAL NAME	STATE												
	CA	CT	FL	IL	LA	NJ	NY	PA	MI	MN	MA	RI	WI
Methyl Ethyl Ketone						Yes		Yes			Yes		

CALIFORNIA

CHEMICAL NAME	CAS #	WARNING! This product contains chemicals known to the state of California to cause:			
		Birth Defects	Reproductive Harm	Carcinogen	Developmental
None Listed					

CLEAN AIR WATER ACTS

CHEMICAL NAME	CAS #	Clean Air Acts			Clean Water Acts		
		HAP	Ozone Class 1	Ozone Class 2	HS	PP	TP
None Listed							

INTERNATIONAL REGULATIONS – The components of this product are listed on the chemical inventories of the following countries:

CHEMICAL NAME	Australia	Canada	Europe (EINECS)	Japan	Korea	UK
Methyl Ethyl Ketone	Yes	Yes	Yes	Yes	Yes	Yes

WHMIS Classification

CHEMICAL NAME	DSL	Class	Description
Methyl Ethyl Ketone	Yes	B-2	Flammable Liquids; Flashpoint < 37.8° C (100°F)
		D-2B	Materials Causing Other Toxic Effects; Toxic Material

SECTION – 16 OTHER INFORMATION**Standard Risk And Safety Phrases**

Code	Definition (R-Phrases / S-Phrases)
R11	Highly flammable
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed
R36/37/38	Irritating to eyes, respiratory system and skin
R65	Harmful: may cause lung damage if swallowed
R67	Vapours may cause drowsiness and dizziness
S2	Keep out of the reach of children
S9	Keep container in a well-ventilated place
S15	Keep away from heat
S16	Keep away from sources of ignition - No smoking
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice
S38	In case of insufficient ventilation wear suitable respiratory equipment
S61	Avoid release to the environment
S62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label where possible
S20/21	When using do not eat, drink or smoke
S24/25	Avoid contact with skin and eyes
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection

SDS LEGEND DESCRIPTION

ACGIH	American Conference of Governmental Industrial Hygienists	LC50	A concentration that is lethal to 50% of a given species in a given time
CAS	Chemical Abstracts Service Registry	LD50	Dose that is lethal to 50% of a given species by a given route of exposure
CEIL	Ceiling Limit (15 minutes)	LEL	Lower Explosive Limit
CERCL	Comprehensive Environmental Response, Compensation, and Liability Act	LD	Liver Damage
CI	Cochlear Impairment	NA	Not Applicable
CNS	Central Nervous System	ND	Not Determined
EC50	Concentration of a chemical that gives half-maximal response	NFPA	National Fire Protection Association
EPA	Environmental Protection Agency	NIOSH	National Institute for Occupational Safety and Health
Eye	(EI = Irritation) (ED = Damage) (EV = Visual Impairment)	NE	Not Established
FBG	Full Bunker Gear	NTP	National Toxicology Program
GHS	Globally Harmonized System	OSHA	Occupational Safety and Health Administration
HAP	California Hazardous air pollutant Clean Air Act	PEL	Permissible Exposure Limit (OSHA)
HMIS-A	Safety Glasses	PNS	Peripheral Nervous System
HMIS-B	Safety glasses, gloves	PP	California Priority Pollutant under the Clean Water Act
HMIS-C	Safety glasses, gloves, chemical apron	REL	Recommended exposure limit (NIOSH)
HMIS-D	Face shield, gloves, chemical apron	RT	Upper Respiratory Tract
HMIS-E	Safety glasses, gloves, dust respirator	Skin	(SI = Irritation) (SD = Damage) (SA = Absorption) (SS = Sensitizer)
HMIS-F	Safety glasses, gloves, chemical apron, dust respirator	SARA	Superfund Amendments and Reauthorization Act
HMIS-G	Safety glasses, gloves, vapor respirator	STEL	Short Term Exposure Limit (15 minutes)
HMIS-H	Splash goggles, gloves, chemical apron, vapor respirator	TC Lo	Air concentration that is lethal to 50% of a given species in a given time
HMIS-I	Safety glasses, gloves, dust and vapor respirator	TD Lo	Lowest dose that is toxic to a given species
HMIS-J	Splash goggles, gloves, chemical apron, dust and vapor respirator	TLV	Threshold Limit Value (ACGIH)
HMIS-K	Air line hood or mask, gloves, full chemical suit, boots	TP	California Toxic Pollutant under the Clean Water Act
HMIS-X	Ask Supervisor	TSCA	Toxic Substances Control Act
HS	California Hazardous Substance under the Clean Water Act	TWA	Time Weighted Average (8 hours)
KD	Kidney Damage (nephropathy)	UEL	Upper Explosive Limit

Buckley Oil Company

and nCites, L.L.C. have compiled the information herein from sources believed to be reliable and up-to-date, and is accurate to the best of our knowledge. However, we cannot give any guarantees regarding information from other sources or the completeness and expressly do not make warranties, nor assume any liability for its use. The information contained herein is provided for reference purposes only and is intended only for persons having relevant technical skills. Because conditions and manner of use are outside of our control, the user is responsible for determining the conditions of safe use of the product. Buyers and users assume all risk, responsibility and liability whatsoever for any and all injuries, losses, or damages to persons or property arising from the use of this product or information.