

Version 1.5

Revision Date: 09/01/2019

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name	:	Methyl Ethyl Ketone ASTM-D740
Recommended use of the chem	ical	and restrictions on use
Recommended use	:	Solvent.
Manufacturer or supplier's detai	ils	
Company		Univar Solutions USA, Inc.
Address		3075 Highland Pkwy Suite 200
		Downers Grove, IL 60515
		United States of America (USA)
Cage Code:	:	4N760
NSN	:	1 QT - 6810-00-281-2764
		1 GL - 6810-00-281-2785
		5 GL - 6810-00-281-2762
		55 GL - 6810-00-281-2763
Emergency telephone num		
Transport North America: CH	EM	TREC (1-800-424-9300)

CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information:	: Responsible Party: Product Compliance Department E-mail: SDSNA@univarsolutions.com
	SDS Requests: 1-855-429-2661 Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification Flammable liquids	: Category 2
Eye irritation	: Category 2A
Specific target organ toxicity - single exposure	: Category 3 (Central nervous system)
GHS label elements Hazard pictograms	
Signal word	: Danger
Hazard statements	 H225 Highly flammable liquid and vapour. H319 Causes serious eye irritation. H336 May cause drowsiness or dizziness.
Precautionary statements	: Prevention: P210 Keep away from heat/sparks/open flames/hot surfaces.



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No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ ventilating/ lighting equip- ment.
P242 Use only non-sparking tools.
P243 Take precautionary measures against static discharge.
P261 Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.
P264 Wash skin thoroughly after handling.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/ eye protection/ face protection.
Response:
P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately
all contaminated clothing. Rinse skin with water/shower.
P304 + P340 + P312 IF INHALED: Remove person to fresh air
and keep comfortable for breathing. Call a POISON
CENTER/doctor if you feel unwell.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water
for several minutes. Remove contact lenses, if present and easy
to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical advice/ atten-
tion.
P370 + P378 In case of fire: Use dry sand, dry chemical or alco-
hol-resistant foam to extinguish.
Storage:
P403 + P233 Store in a well-ventilated place. Keep container
tightly closed.
P403 + P235 Store in a well-ventilated place. Keep cool.
P405 Store locked up.
Disposal:
P501 Dispose of contents/ container to an approved waste dis-
posal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Hazardous components

CAS-No.	Chemical name	Weight percent	
78-93-3	Methyl ethyl ketone	90 - 100	
Any Concentration shown as a range is due to batch variation			

Any Concentration shown as a range is due to batch variation.

SECTION 4. FIRST AID MEASURES

General advice

: Move out of dangerous area. Show this safety data sheet to the doctor in attendance. Do not leave the victim unattended.



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If inhaled	: Consult a physician after significant exposure. If unconscious, place in recovery position and seek medical advice.
In case of skin contact	: If on skin, rinse well with water. If on clothes, remove clothes.
In case of eye contact	 Immediately flush eye(s) with plenty of water. Remove contact lenses. Protect unharmed eye. Keep eye wide open while rinsing. If eye irritation persists, consult a specialist.
If swallowed	 Keep respiratory tract clear. Do not give milk or alcoholic beverages. Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Do not induce vomiting without medical advice.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media	Alcohol-resistant foam Carbon dioxide (CO2) Dry chemical	
Unsuitable extinguishing media	High volume water jet	
Specific hazards during fire- fighting	Do not allow run-off from fire fighting to enter drains courses.	or water
Hazardous combustion prod- ucts	Carbon oxides	
Further information	Collect contaminated fire extinguishing water separa must not be discharged into drains. Fire residues and contaminated fire extinguishing w be disposed of in accordance with local regulations. For safety reasons in case of fire, cans should be st rately in closed containments. Use a water spray to cool fully closed containers.	ater must
Special protective equipment for firefighters	Wear self-contained breathing apparatus for firefigh essary. Jse personal protective equipment.	ting if nec-

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protec-	:	Use personal protective equipment.
tive equipment and emer-		Ensure adequate ventilation.
gency procedures		Remove all sources of ignition.



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	Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentra- tions. Vapours can accumulate in low areas.
Environmental precautions	 Prevent product from entering drains. Prevent further leakage or spillage if safe to do so. If the product contaminates rivers and lakes or drains inform respective authorities.
Methods and materials for containment and cleaning up	: Contain spillage, and then collect with non-combustible ab- sorbent material, (e.g. sand, earth, diatomaceous earth, ver- miculite) and place in container for disposal according to local / national regulations (see section 13).

SECTION 7. HANDLING AND STORAGE

Advice on protection against fire and explosion	: Do not spray on a naked flame or any incandescent material. Take necessary action to avoid static electricity discharge (which might cause ignition of organic vapours). Use only explosion-proof equipment. Keep away from open flames, hot surfaces and sources of ignition.
Advice on safe handling	 Avoid formation of aerosol. Do not breathe vapours/dust. Avoid exposure - obtain special instructions before use. Avoid contact with skin and eyes. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Take precautionary measures against static discharges. Provide sufficient air exchange and/or exhaust in work rooms. Container may be opened only under exhaust ventilation hood. Open drum carefully as content may be under pressure. Dispose of rinse water in accordance with local and national regulations.
Conditions for safe storage	 No smoking. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Observe label precautions. Electrical installations / working materials must comply with the technological safety standards.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	(Form of	Control parame- ters / Permissible	Basis
		exposure)	concentration	



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78-93-3	Methyl ethyl ketone	TWA	200 ppm	ACGIH		
		STEL	300 ppm	ACGIH		
		TWA	200 ppm 590 mg/m3	NIOSH REL		
		ST	300 ppm 885 mg/m3	NIOSH REL		
		TWA	200 ppm 590 mg/m3	OSHA Z-1		
		TWA	200 ppm 590 mg/m3	OSHA P0		
		STEL	300 ppm 885 mg/m3	OSHA P0		

Personal protective equipment

i oloonal protootillo oquipilloni		
Respiratory protection	:	General and local exhaust ventilation is recommended to maintain vapor exposures below recommended limits. Where concentrations are above recommended limits or are un- known, appropriate respiratory protection should be worn. Follow OSHA respirator regulations (29 CFR 1910.134) and use NIOSH/MSHA approved respirators. Protection provided by air purifying respirators against exposure to any hazardous chemical is limited. Use a positive pressure air supplied respi- rator if there is any potential for uncontrolled release, expo- sure levels are unknown, or any other circumstance where air purifying respirators may not provide adequate protection.
Hand protection		
Remarks	:	The suitability for a specific workplace should be discussed with the producers of the protective gloves.
Eye protection	:	Eye wash bottle with pure water Tightly fitting safety goggles Wear face-shield and protective suit for abnormal processing problems.
Skin and body protection	:	Impervious clothing Choose body protection according to the amount and concen- tration of the dangerous substance at the work place.
Hygiene measures	:	When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: liquid
Colour	: Clear, Colorless
Odour	: characteristic, pungent, sweet



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Odour Threshold	: No data available
рН	: No data available
Freezing Point (Melting point/freezing point)	: -86 °C (-123 °F)
Boiling Point (Boiling point/boiling range)	: 79 - 81 °C (174 - 178 °F)
Flash point	: -94 °C (16 - 25 °F)
Evaporation rate	: <7.7
Flammability (solid, gas)	(Butyl Acetate = 1) : No data available
Upper explosion limit	: 11.5 %(V)
Lower explosion limit	: 1 %(V)
Vapour pressure	: < 94.500 mmHg @ 20 - 25 °C (68 - 77 °F)
Relative vapour density	: <2.5 @ 20 °C (68 °F) (Air = 1.0)
Relative density	: 0.804 - 0.807 @ 20 °C (68 °F) Reference substance: (water = 1)
Density	: 0.804 - 0.806 g/cm3 @ 20 °C (68 °F)
Solubility(ies) Water solubility	: completely miscible @ 20 °C (68 °F)
Solubility in other solvents	: No data available
Partition coefficient: n- octanol/water	: log Pow: 0.3
Auto-ignition temperature	: 404 - 515 °C
Thermal decomposition	: No data available
Viscosity Viscosity, dynamic	: 0.40 - 0.42 mPa.s @ 20 °C (68 °F)
Viscosity, kinematic	: 0.51 mm2/s @ 20 °C (68 °F)
Surface tension	: 24.8 mN/m, 20 °C

SECTION 10. STABILITY AND REACTIVITY



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Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reac- tions	: Vapours may form explosive mixture with air.
Conditions to avoid	: Keep away from heat, flame, sparks and other ignition sources. Exposure to moisture
Incompatible materials	: Alkalis Chloroform hydrogen peroxide Nitric acid Oxidizing agents strong reducing agents
Hazardous decomposition products	: Carbon oxides

SECTION 11. TOXICOLOGICAL INFORMATION

Serious eye damage/eye irritation

Components:

78-93-3: Species: Rabbit Result: Irritating to eyes. Exposure time: 24 h

Carcinogenicity	
IARC	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.
OSHA	No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
STOT - single exposure	
<u>Components:</u>	



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78-93-3:

Target Organs: Central nervous system Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.

Further information

Product:

Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

Concentrations substantially above the TLV value may cause narcotic effects. Solvents may degrease the skin.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No data available

Persistence and degradability

No data available

Bioaccumulative potential

No data available

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential	:	Regulation: 40 CFR Protection of Environment; Part 82 Pro- tection of Stratospheric Ozone - CAA Section 602 Class I Substances Remarks: This product neither contains, nor was manufac- tured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).
Additional ecological infor- mation	:	No data available

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods	
Waste from residues	 Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Uni- var Solutions ChemCare: 1-800-909-4897



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Contaminated packaging : Empty remaining contents. Dispose of as unused product. Do not re-use empty containers. Do not burn, or use a cutting torch on, the empty drum.

SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation):

UN1193, METHYL ETHYL KETONE, 3, II

IATA (International Air Transport Association):

UN1193, METHYL ETHYL KETONE, 3, II

IMDG (International Maritime Dangerous Goods):

UN1193, METHYL ETHYL KETONE, 3, II, Flash Point:-9 - -4 °C(16 - 25 °F)

SECTION 15. REGULATORY INFORMATION

WHMIS Classification

: B2: Flammable liquid D2B: Toxic Material Causing Other Toxic Effects

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
		(au)	(au)
Methyl ethyl ketone	78-93-3	5000	5051

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards	:	Fire Hazard Acute Health Hazard
SARA 302	:	No chemicals in this material are subject to the reporting re- quirements of SARA Title III, Section 302.
SARA 313	:	This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).



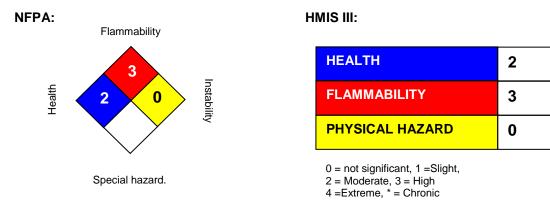
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The following chemical(s) ar VOC's (40 CFR 60.489): 78-93-3		under the U.S. Clean Air Act Se ethyl ketone	ction 111 SOCMI Intermediate or Final
Clean Water Act			
	in any H	Hazardous Substances listed und	der the U.S. CleanWater Act, Section
Table 117.3.	-		er the U.S. CleanWater Act, Section 311,
This product does not conta	in any t	oxic pollutants listed under the U	.S. Clean Water Act Section 307
US State Regulations			
Massachusetts Right To K	now		
78-93-3		Methyl ethyl ketone	90 - 100 %
Pennsylvania Right To Kn	ow		
78-93-3	1	Methyl ethyl ketone	90 - 100 %
New Jersey Right To Know	N		
78-93-3	1	Methyl ethyl ketone	90 - 100 %
California Prop 65	(This product does not contain an of California to cause cancer, birt productive harm.	
The components of this pr	roduct	are reported in the following ir	ventories:
TSCA	: (On TSCA Inventory	
DSL	: /	All components of this product ar	e on the Canadian DSL
AICS	: (On the inventory, or in complianc	e with the inventory
NZIoC	: (On the inventory, or in complianc	e with the inventory
ENCS	: (On the inventory, or in complianc	e with the inventory
KECI	: (On the inventory, or in complianc	e with the inventory
PHIL	: (On the inventory, or in complianc	e with the inventory
IECSC	: (On the inventory, or in complianc	e with the inventory



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SECTION16. OTHER INFORMATION



The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

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Material number:

16056341, 16056338, 16056340, 16056339, 16056337

Key or le	Key or legend to abbreviations and acronyms used in the safety data sheet						
ACGIH	American Conference of Govern- ment Industrial Hygienists	LD50	Lethal Dose 50%				
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level				
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency				
NDSL	Canada, Non-Domestic Substanc- es List	NIOSH	National Institute for Occupational Safety & Health				
CNS	Central Nervous System	NTP	National Toxicology Program				
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemi- cals				
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level				
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration				
EGEST	EOSCA Generic Exposure Scenar- io Tool	OSHA	Occupational Safety & Health Administration				
EOSCA	European Oilfield Specialty Chem- icals Association	PEL	Permissible Exposure Limit				



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	1		
EINECS	European Inventory of Existing	PICCS	Philippines Inventory of Commer-
	Chemical Substances		cial Chemical Substances
MAK	Germany Maximum Concentration	PRNT	Presumed Not Toxic
	Values		
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery
			Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and
			Reauthorization Act.
IARC	International Agency for Research	TLV	Threshold Limit Value
	on Cancer		
IECSC	Inventory of Existing Chemical	TWA	Time Weighted Average
	Substances in China		
ENCS	Japan, Inventory of Existing and	TSCA	Toxic Substance Control Act
	New Chemical Substances		
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composi-
			tion, Complex Reaction Products,
			and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials
			Information System
LC50	Lethal Concentration 50%		