SAFETY DATA SHEET

SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

PRODUCT

Product Name: **MOBIL SYSTEM CLEANER**
Product Description: Base Oil and Additives
Product Code: 201560B0B710, 606897-00, 97AU73
Intended Use: Additive, Cleaning agent

COMPANY IDENTIFICATION

Supplier: **EXXON MOBIL CORPORATION**
22777 Springwoods Village Parkway
Spring, TX 77389 USA

24 Hour Health Emergency	609-737-4411
Transportation Emergency Phone	800-424-9300 or 703-527-3887 CHEMTREC
Product Technical Information	800-662-4525
MSDS Internet Address	www.exxon.com, www.mobil.com

SECTION 2 HAZARDS IDENTIFICATION

This material is hazardous according to regulatory guidelines (see (M)SDS Section 15).

CLASSIFICATION:

Skin irritation: Category 2. Serious eye damage: Category 1.

LABEL:
Pictogram:



Signal Word: Danger

Hazard Statements:
H315: Causes skin irritation. H318: Causes serious eye damage.

Precautionary Statements:
P264: Wash skin thoroughly after handling. P273: Avoid release to the environment. P280: Wear protective gloves and eye / face protection.P302 + P352: IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P310: Immediately call a POISON CENTER or doctor/physician. P332 + P313: If skin irritation occurs: Get medical advice/ attention. P362 + P364: Take off contaminated clothing and wash it before reuse. P391: Collect spillage.P501: Dispose of contents and container in accordance with local regulations.

Contains: ETHOXYLATED ALCOHOLS; LONG-CHAIN ALKENYL AMINE; PROPOXYLATED DIAMINE

Other hazard information:

HAZARD NOT OTHERWISE CLASSIFIED (HNOC): None as defined under 29 CFR 1910.1200.

PHYSICAL / CHEMICAL HAZARDS
No significant hazards.

HEALTH HAZARDS
High-pressure injection under skin may cause serious damage. May be irritating to nose, throat, and lungs.

ENVIRONMENTAL HAZARDS
Expected to be very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

NFPA Hazard ID:	Health:	3	Flammability:	1	Reactivity:	0
HMIS Hazard ID:	Health:	3	Flammability:	1	Reactivity:	0

NOTE: This material should not be used for any other purpose than the intended use in Section 1 without expert advice. Health studies have shown that chemical exposure may cause potential human health risks which may vary from person to person.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

This material is defined as a mixture.

Hazardous Substance(s) or Complex Substance(s) required for disclosure

Name	CAS#	Concentration*	GHS Hazard Codes
ALCOHOLS, C9-11, ETHOXYLATED	68439-46-3	10 - < 20%	H303, H318, H401
AMINES, N-TALLOW ALKYLTRIMETHYLENEDI-, PROPOXYLATED	68603-75-8	10 - < 20%	H302, H314(1C), H400(M factor 10), H410(M factor 10)
LONG-CHAIN ALKENYL AMINE	112-90-3	0.01 - < 0.025%	H302, H304, H335, H314(1B), H373, H400(M factor 10), H410(M factor 10)
SULFONIC ACIDS, PETROLEUM, CALCIUM SALTS	61789-86-4	5 - < 10%	None

* All concentrations are percent by weight unless material is a gas. Gas concentrations are in percent by volume.

As per paragraph (i) of 29 CFR 1910.1200, formulation is considered a trade secret and specific chemical identity and exact percentage (concentration) of composition may have been withheld. Specific chemical identity and exact percentage composition will be provided to health professionals, employees, or designated representatives in accordance with applicable provisions of paragraph (i).

SECTION 4 FIRST AID MEASURES

INHALATION

Immediately remove from further exposure. Get immediate medical assistance. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. Give supplemental oxygen, if available. If breathing has stopped, assist ventilation with a mechanical device.

SKIN CONTACT

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

EYE CONTACT

Flush thoroughly with water for at least 15 minutes. Get immediate medical assistance. If medical assistance is not immediately available, flush an additional 15 minutes.

INGESTION

Give one or two glasses of water if patient is alert and able to swallow. Seek immediate medical attention. Do not induce vomiting.

SECTION 5 FIRE FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish flames.

Inappropriate Extinguishing Media: Straight Streams of Water

FIRE FIGHTING

Fire Fighting Instructions: Evacuate area. Prevent runoff from fire control or dilution from entering streams, sewers, or drinking water supply. Firefighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

Hazardous Combustion Products: Aldehydes, Incomplete combustion products, Nitrogen oxides, Oxides of carbon, Smoke, Fume, Sulfur oxides

FLAMMABILITY PROPERTIES

Flash Point [Method]: >149°C (300°F) [ASTM D-93]
Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D
Autoignition Temperature: N/D

SECTION 6 ACCIDENTAL RELEASE MEASURES

NOTIFICATION PROCEDURES

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable

regulations. US regulations require reporting releases of this material to the environment which exceed the applicable reportable quantity or oil spills which could reach any waterway including intermittent dry creeks. The National Response Center can be reached at (800)424-8802.

PROTECTIVE MEASURES

Avoid contact with spilled material. Warn or evacuate occupants in surrounding and downwind areas if required due to toxicity or flammability of the material. See Section 5 for fire fighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

SPILL MANAGEMENT

Land Spill: Stop leak if you can do it without risk. Do not touch or walk through spilled material. Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers. Use clean non-sparking tools to collect absorbed material. Small Spills: Absorb with earth, sand or other non-combustible material and transfer to containers for later disposal.

Water Spill: Stop leak if you can do it without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

ENVIRONMENTAL PRECAUTIONS

Large Spills: Dike far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

SECTION 7 HANDLING AND STORAGE

HANDLING

Avoid contact with skin. Avoid contact with eyes. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or ground procedures. However, bonding and grounds may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator: This material is a static accumulator.

STORAGE

The type of container used to store the material may affect static accumulation and dissipation. Do not store

in open or unlabelled containers. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area.

SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits/standards for materials that can be formed when handling this product: When mists/aerosols can occur the following are recommended: 5 mg/m³ - ACGIH TLV (inhalable fraction), 5 mg/m³ - OSHA PEL.

NOTE: Limits/standards shown for guidance only. Follow applicable regulations.

No biological limits allocated.

ENGINEERING CONTROLS

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

Adequate ventilation should be provided so that exposure limits are not exceeded. Eye washes and showers for emergency use.

PERSONAL PROTECTION

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:

Half-face filter respirator

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

Chemical resistant gloves are recommended.

Eye Protection: Chemical goggles and face shield are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

Chemical/oil resistant clothing is recommended.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after

handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

ENVIRONMENTAL CONTROLS

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

GENERAL INFORMATION

Physical State: Liquid
Form: Viscous
Color: Brown
Odor: Ammonia-like
Odor Threshold: N/D

IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

Relative Density (at 15 °C): 0.92
Flammability (Solid, Gas): N/A
Flash Point [Method]: >149°C (300°F) [ASTM D-93]
Flammable Limits (Approximate volume % in air): LEL: N/D UEL: N/D
Autoignition Temperature: N/D
Boiling Point / Range: N/D
Decomposition Temperature: N/D
Vapor Density (Air = 1): N/D
Vapor Pressure: [N/D at 20 °C]
Evaporation Rate (n-butyl acetate = 1): N/D
pH: N/A
Log Pow (n-Octanol/Water Partition Coefficient): N/D
Solubility in Water: Appreciable
Viscosity: 55 cSt (55 mm2/sec) at 40 °C
Oxidizing Properties: See Hazards Identification Section.

OTHER INFORMATION

Freezing Point: N/D
Melting Point: N/A
DMSO Extract (mineral oil only), IP-346: < 3 %wt

SECTION 10 STABILITY AND REACTIVITY

REACTIVITY: See sub-sections below.

STABILITY: Material is stable under normal conditions.

CONDITIONS TO AVOID: Excessive heat. High energy sources of ignition.

MATERIALS TO AVOID: Strong Acids, Strong oxidizers

HAZARDOUS DECOMPOSITION PRODUCTS: Material does not decompose at ambient temperatures.

POSSIBILITY OF HAZARDOUS REACTIONS: Hazardous polymerization will not occur.

SECTION 11 TOXICOLOGICAL INFORMATION

INFORMATION ON TOXICOLOGICAL EFFECTS

Hazard Class	Conclusion / Remarks
Inhalation	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Irritation: No end point data for material.	Elevated temperatures or mechanical action may form vapors, mist, or fumes which may be irritating to the eyes, nose, throat, or lungs.
Ingestion	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
Skin Corrosion/Irritation: No end point data for material.	Irritating to the skin. Based on assessment of the components.
Eye	
Serious Eye Damage/Irritation: No end point data for material.	Severely irritating, and may seriously damage eye tissue. Based on assessment of the components.
Sensitization	
Respiratory Sensitization: No end point data for material.	Not expected to be a respiratory sensitizer.
Skin Sensitization: No end point data for material.	Not expected to be a skin sensitizer. Based on assessment of the components.
Aspiration: Data available.	Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.
Germ Cell Mutagenicity: No end point data for material.	Not expected to be a germ cell mutagen. Based on assessment of the components.
Carcinogenicity: No end point data for material.	Not expected to cause cancer. Based on assessment of the components.
Reproductive Toxicity: No end point data for material.	Not expected to be a reproductive toxicant. Based on assessment of the components.
Lactation: No end point data for material.	Not expected to cause harm to breast-fed children.
Specific Target Organ Toxicity (STOT)	
Single Exposure: No end point data for material.	Not expected to cause organ damage from a single exposure.
Repeated Exposure: No end point data for material.	Not expected to cause organ damage from prolonged or repeated exposure. Based on assessment of the components.

TOXICITY FOR SUBSTANCES

NAME	ACUTE TOXICITY
ALCOHOLS, C9-11, ETHOXYLATED	Oral Lethality: LD50 1400 mg/kg (Rat)
AMINES, N-TALLOW	Oral Lethality: LD50 1255 mg/kg (Rat)

ALKYLTRIMETHYLENEDI-, PROPOXYLATED	

OTHER INFORMATION

For the product itself:

Component concentrations in this formulation would not be expected to cause skin sensitization, based on tests of the components, this formulation, or similar formulations.

Contains:

Base oil severely refined: Not carcinogenic in animal studies. Representative material passes IP-346, Modified Ames test, and/or other screening tests. Dermal and inhalation studies showed minimal effects; lung non-specific infiltration of immune cells, oil deposition and minimal granuloma formation. Not sensitizing in test animals.

The following ingredients are cited on the lists below: None.

--REGULATORY LISTS SEARCHED--

1 = NTP CARC	3 = IARC 1	5 = IARC 2B
2 = NTP SUS	4 = IARC 2A	6 = OSHA CARC

SECTION 12 ECOLOGICAL INFORMATION

The information given is based on data for the material, components of the material, or for similar materials, through the application of bridging principals.

ECOTOXICITY

Material -- Expected to be very toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

OTHER ECOLOGICAL INFORMATION

VOC: 35.4 G/L [ASTM E1868-10]

SECTION 13 DISPOSAL CONSIDERATIONS

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

DISPOSAL RECOMMENDATIONS

Dispose of waste at an appropriate treatment & disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

REGULATORY DISPOSAL INFORMATION

RCRA Information: The unused product, in our opinion, is not specifically listed by the EPA as a hazardous waste (40 CFR, Part 261D), nor is it formulated to contain materials which are listed as hazardous wastes. It does not exhibit the hazardous characteristics of ignitability, corrosivity or reactivity and is not formulated with contaminants as determined by the Toxicity Characteristic Leaching Procedure (TCLP). However, used product may be regulated.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

SECTION 14 TRANSPORT INFORMATION

LAND (DOT)

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Propoxylated diamine)
Hazard Class & Division: 9
ID Number: 3082
Packing Group: III
Marine Pollutant: Yes
ERG Number: 171
Label(s): 9
Transport Document Name: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Propoxylated diamine), 9, PG III, MARINE POLLUTANT

Footnote: This material is not regulated under 49 CFR in a container of 119 gallon capacity or less when transported solely by air or land transportation.

LAND (TDG)

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Propoxylated diamine)
Hazard Class & Division: 9
UN Number: 3082
Packing Group: III
Marine Pollutant: Yes
Special Provisions: 16, 99

Footnote: Marine Pollutant designation is applicable only if shipped over water. Not subject to the provisions of UN3082 Environmentally hazardous substances liquid, n.o.s., if shipped in quantities of 5 liters or less per single or inner packaging, and the mass of each outer means of containment is 30 kg or less, as per TDG Regs. SOR/2008-34 (Section 1.17).

SEA (IMDG)

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Propoxylated diamine)
Hazard Class & Division: 9
EMS Number: F-A, S-F
UN Number: 3082
Packing Group: III
Marine Pollutant: Yes
Label(s): 9
Transport Document Name: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Propoxylated diamine), 9, PG III, MARINE POLLUTANT

Footnote: Not subject to the provisions of UN3082 Environmentally hazardous substances liquid, n.o.s., if shipped in quantities of 5 liters or less per single or inner combination packaging as per IMDG code 2.10.2.7.

AIR (IATA)

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Propoxylated diamine)
Hazard Class & Division: 9
UN Number: 3082
Packing Group: III
Label(s) / Mark(s): 9, EHS
Transport Document Name: UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (Propoxylated diamine), 9, PG III

[Footnote: Not subject to the provisions of UN3082 Environmentally hazardous substances liquid, n.o.s., if shipped in quantities of 5 liters or less per single or inner combination packaging as per Special Provision A197.]

SECTION 15 REGULATORY INFORMATION

OSHA HAZARD COMMUNICATION STANDARD: This material is considered hazardous in accordance with OSHA HazCom 2012, 29 CFR 1910.1200.

Listed or exempt from listing/notification on the following chemical inventories: AIIC, DSL, IECSC, TCSI, TSCA

SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302

SARA (311/312) REPORTABLE GHS HAZARD CLASSES: Serious eye damage or eye irritation, Skin Corrosion or Irritation

SARA (313) TOXIC RELEASE INVENTORY: This material contains no chemicals subject to the supplier notification requirements of the SARA 313 Toxic Release Program.

The following ingredients are cited on the lists below:

Chemical Name	CAS Number	List Citations
HYDRO TREATED HEAVY NAPHTHENIC DISTILLATE	64742-52-5	13, 17, 18

--REGULATORY LISTS SEARCHED--

1 = ACGIH ALL	6 = TSCA 5a2	11 = CA P65 REPRO	16 = MN RTK
2 = ACGIH A1	7 = TSCA 5e	12 = CA RTK	17 = NJ RTK
3 = ACGIH A2	8 = TSCA 6	13 = IL RTK	18 = PA RTK
4 = OSHA Z	9 = TSCA 12b	14 = LA RTK	19 = RI RTK
5 = TSCA 4	10 = CA P65 CARC	15 = MI 293	

Code key: CARC=Carcinogen; REPRO=Reproductive

SECTION 16 OTHER INFORMATION

N/D = Not determined, N/A = Not applicable

KEY TO THE H-CODES CONTAINED IN SECTION 3 OF THIS DOCUMENT (for information only):
H302: Harmful if swallowed; Acute Tox Oral, Cat 4
H303: May be harmful if swallowed; Acute Tox Oral, Cat 5
H304: May be fatal if swallowed and enters airways; Aspiration, Cat 1
H314(1B): Causes severe skin burns and eye damage; Skin Corr/Irritation, Cat 1B
H314(1C): Causes severe skin burns and eye damage; Skin Corr/Irritation, Cat 1C
H317: May cause allergic skin reaction; Skin Sensitization, Cat 1
H318: Causes serious eye damage; Serious Eye Damage/Irr, Cat 1
H335: May cause respiratory irritation; Target Organ Single, Resp Irr
H373: May cause damage to organs through prolonged or repeated exposure; Target Organ, Repeated, Cat 2
H400: Very toxic to aquatic life; Acute Env Tox, Cat 1
H401: Toxic to aquatic life; Acute Env Tox, Cat 2
H410: Very toxic to aquatic life with long lasting effects; Chronic Env Tox, Cat 1

THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:
Composition: Component Table information was modified.
Section 09: Flash Point C(F) information was modified.
Section 11 Substance Toxicology table information was modified.

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