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## SAFETY DATA SHEET

### SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

#### PRODUCT

**Product Name:** MOBILCUT 321  
**Product Description:** Synthetic Base Stocks and Additives  
**Product Code:** 2015703010B0, 660423-00, 97D023  
**Intended Use:** Water-miscible cutting fluid

#### 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** <http://www.exxon.com>, <http://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. Eye irritation: Category 2A.

#### LABEL:

##### Pictogram:



**Signal Word:** Warning

#### Hazard Statements:

H315: Causes skin irritation. H319: Causes serious eye irritation.

#### 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. P332 + P313: If skin irritation occurs: Get medical advice/ attention. P337 + P313: If eye irritation persists: Get medical advice/attention. P362 + P364: Take off contaminated clothing and wash it before reuse. P501: Dispose of contents and container in accordance with local regulations.

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**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. Mists may be irritating to the eyes, nose, throat, and lungs. May be irritating to nose, throat, and lungs.

**ENVIRONMENTAL HAZARDS**

No significant hazards.

<b>NFPA Hazard ID:</b>	Health: 2	Flammability: 1	Reactivity: 0
<b>HMIS Hazard ID:</b>	Health: 2	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.

<b>SECTION 3</b>	<b>COMPOSITION / INFORMATION ON INGREDIENTS</b>
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This material is defined as a mixture.

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

Name	CAS#	Concentration*	GHS Hazard Codes
1,2,3-PROPANETRIOL	56-81-5	1 - < 5%	None
BORIC ACID (H3BO3), COMPOUND WITH 2,2',2"-NITRILOTRIS(ETHANOL)	10049-36-2	20 - < 30%	H315, H319(2A)
BORIC ACID, COMPOUND WITH 2-AMINOETHANOL	26038-87-9	5 - < 10%	H315, H319(2A)
FATTY ACIDS, C9-18, COMPDS. WITH TRIETHANOLAMINE	68989-59-3	10 - < 20%	H315, H319(2A)
PROPYLENE GLYCOL	57-55-6	0.1 - < 1%	None
SODIUM 2-PYRIDINETHIOL-1-OXIDE	3811-73-2	0.1 < 1%	H302, H312, H332, H315, H319(2A), H400(M factor 100), H410(M factor 10)

\* 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).

<b>SECTION 4</b>	<b>FIRST AID MEASURES</b>
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## INHALATION

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

## 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

Seek immediate medical attention. Do not induce vomiting.

## NOTE TO PHYSICIAN

Pre-existing conditions which may be aggravated by exposure include emphysema and asthma. If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

<b>SECTION 5</b>	<b>FIRE FIGHTING MEASURES</b>
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## EXTINGUISHING MEDIA

**Appropriate Extinguishing Media:** Use water fog, foam, dry chemical or carbon dioxide (CO<sub>2</sub>) 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:** Pressurized mists may form a flammable mixture. Hazardous material. Firefighters should consider protective equipment indicated in Section 8.

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

## FLAMMABILITY PROPERTIES

**Flash Point [Method]:** >100°C (212°F) [ASTM D-92]

**Flammable Limits (Approximate volume % in air):** LEL: N/D UEL: N/D

**Autoignition Temperature:** >150°C (302°F)

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## 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.

### SPILL MANAGEMENT

**Land Spill:** Stop leak if you can do it without risk. Recover by pumping or with suitable absorbent.

**Water Spill:** Stop leak if you can do it without risk. This product emulsifies, disperses or is miscible in water. Remove material, as much as possible, using mechanical equipment.

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

Remove debris in path of spill prior to oiling and remove contaminated debris from shoreline and water surface and dispose of according to local regulations. 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 breathing mists or vapors. Avoid contact with skin. Avoid contact with eyes. Small metal particles from machining may cause abrasion of the skin and may predispose to dermatitis. 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

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The container choice, for example storage vessel, may effect static accumulation and dissipation. Do not store in open or unlabelled containers.

<b>SECTION 8</b>	<b>EXPOSURE CONTROLS / PERSONAL PROTECTION</b>
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## EXPOSURE LIMIT VALUES

Exposure limits/standards (Note: Exposure limits are not additive)

Substance Name	Form	Limit / Standard		NOTE	Source
1,2,3-PROPANETRIOL	Respirable fraction.	TWA	5 mg/m3	N/A	OSHA Z1
1,2,3-PROPANETRIOL	Total dust.	TWA	15 mg/m3	N/A	OSHA Z1
PROPYLENE GLYCOL	Aerosol.	TWA	10 mg/m3	N/A	OARS WEEL

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:

No special requirements under ordinary conditions of use and with adequate ventilation.

## 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:

Particulate air-purifying respirator approved for dust / oil mist is recommended.

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 are recommended.

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**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

**Color:** Dark Green

**Odor:** Characteristic

**Odor Threshold:** N/D

### IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION

**Relative Density (at 15 °C):** 1.1

**Flammability (Solid, Gas):** N/A

**Flash Point [Method]:** >100°C (212°F) [ASTM D-92]

**Flammable Limits (Approximate volume % in air):** LEL: N/D UEL: N/D

**Autoignition Temperature:** >150°C (302°F)

**Boiling Point / Range:** > 100°C (212°F)

**Decomposition Temperature:** N/D

**Vapor Density (Air = 1):** N/D

**Vapor Pressure:** < 0.013 kPa (0.1 mm Hg) at 20 °C [Estimated]

**Evaporation Rate (n-butyl acetate = 1):** < 1

**pH:** 9.4

**Log Pow (n-Octanol/Water Partition Coefficient):** N/D

**Solubility in Water:** Emulsifies

**Viscosity:** 5 cSt (5 mm<sup>2</sup>/sec) at 40 °C

**Oxidizing Properties:** See Hazards Identification Section.

### OTHER INFORMATION

**Freezing Point:** N/D

**Melting Point:** N/A

**Pour Point:** < 0°C (32°F)

## SECTION 10 STABILITY AND REACTIVITY

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**REACTIVITY:** See sub-sections below.

**STABILITY:** Material is stable under normal conditions.

**CONDITIONS TO AVOID:** High energy sources of ignition., Heat/ Freezing temperatures.

**MATERIALS TO AVOID:** Strong oxidizers

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

**POSSIBILITY OF HAZARDOUS REACTIONS:** Hazardous polymerization will not occur.

<b>SECTION 11</b>	<b>TOXICOLOGICAL INFORMATION</b>
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**INFORMATION ON TOXICOLOGICAL EFFECTS**

<u>Hazard Class</u>	<u>Conclusion / Remarks</u>
<b>Inhalation</b>	
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. Based on assessment of the components.
<b>Ingestion</b>	
Acute Toxicity: No end point data for material.	Minimally Toxic. Based on assessment of the components.
<b>Skin</b>	
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.
<b>Eye</b>	
Serious Eye Damage/Irritation: No end point data for material.	Irritating and will injure eye tissue. Based on assessment of the components.
<b>Sensitization</b>	
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.
<b>Aspiration:</b> Data available.	Not expected to be an aspiration hazard. Based on physico-chemical properties of the material.
<b>Germ Cell Mutagenicity:</b> No end point data for material.	Not expected to be a germ cell mutagen. Based on assessment of the components.
<b>Carcinogenicity:</b> No end point data for material.	Not expected to cause cancer. Based on assessment of the components.
<b>Reproductive Toxicity:</b> No end point data for material.	Not expected to be a reproductive toxicant. Based on assessment of the components.
<b>Lactation:</b> No end point data for material.	Not expected to cause harm to breast-fed children.
<b>Specific Target Organ Toxicity (STOT)</b>	
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**

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NAME	ACUTE TOXICITY
SODIUM 2-PYRIDINETHIOL-1-OXIDE	Dermal Lethality: LD50 1800 mg/kg (Rabbit); Inhalation Lethality: 4 hour(s) LC50 1.08 mg/l (Aerosol) (Rat); Oral Lethality: LD50 1208 mg/kg (Rat)

## OTHER INFORMATION

**For the product itself:** Synthetic base oils: Not expected to cause significant health effects under conditions of normal use, based on laboratory studies with the same or similar materials. Not mutagenic or genotoxic. Not sensitizing in test animals and humans.

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

### --REGULATORY LISTS SEARCHED--

1 = NTP CARC

2 = NTP SUS

3 = IARC 1

4 = IARC 2A

5 = IARC 2B

6 = OSHA CARC

## SECTION 12

## ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

### ECOTOXICITY

Material -- Not expected to be harmful to aquatic organisms.

### MOBILITY

Components -- Expected to remain in water or migrate through soil.

### PERSISTENCE AND DEGRADABILITY

#### Biodegradation:

Components -- Expected to be inherently biodegradable

### BIOACCUMULATION POTENTIAL

Components -- Has the potential to bioaccumulate, however metabolism or physical properties may reduce the bioconcentration or limit bioavailability.

### OTHER ECOLOGICAL INFORMATION

**VOC:** 17.3 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

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products.

#### 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.

<b>SECTION 14</b>	<b>TRANSPORT INFORMATION</b>
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**LAND (DOT):** Not Regulated for Land Transport

**LAND (TDG):** Not Regulated for Land Transport

**SEA (IMDG):** Not Regulated for Sea Transport according to IMDG-Code

**Marine Pollutant:** No

**AIR (IATA):** Not Regulated for Air Transport

<b>SECTION 15</b>	<b>REGULATORY INFORMATION</b>
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**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:** AICS, DSL, ENCS, IECSC, KECI, TSCA

**PRODUCT REGISTRATION STATUS:** USA

**EPCRA SECTION 302:** This material contains no extremely hazardous substances.

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**CWA / OPA:** This product is classified as an oil under Section 311 of the Clean Water Act (40 CFR 110) and the Oil Pollution Act of 1990. Discharge or spills which produce a visible sheen on either surface water, or in waterways/sewers which lead to surface water, must be reported to the National Response Center at 800-424-8802.

**SARA (311/312) REPORTABLE HAZARD CATEGORIES:** Immediate Health.

**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
1,2,3-PROPANETRIOL	56-81-5	4, 13, 16, 17, 18
PROPYLENE GLYCOL	57-55-6	16, 17

--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

H312: Harmful in contact with skin; Acute Tox Dermal, Cat 4

H315: Causes skin irritation; Skin Corr/Irritation, Cat 2

H319(2A): Causes serious eye irritation; Serious Eye Damage/Irr, Cat 2A

H400: Very toxic to aquatic life; Acute Env Tox, Cat 1

**THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:**

Updates made in accordance with implementation of GHS requirements.

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PPEC: D

DGN: 7060675XUS (1010614)

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