**Safety Data Sheet: Signal ISOKLEEN 144**

**Revision Date: January 2, 2022**

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| SECTION 1                                              PRODUCT AND COMPANY IDENTIFICATION |

**PRODUCT**

 **Product Name:** Signal ISOKLEEN 144

 **Product Description:** Isoparaffinic Hydrocarbon

 **Intended Use:** Solvent – Degreasing Agent

**COMPANY IDENTIFICATION**

 **Supplier:** Beacon Lubricants

 P.O Box 754

 Edinboro, PA 16412

**Emergency Telephone:** 1-877-734-7334 – Beacon Lubricants, Inc.
**Emergency Telephone:** 1-800-424-9300 (24 hours) – Chemtrec approval

**Website:** www.beaconlubricants.com

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| SECTION 2                                                HAZARDS IDENTIFICATION  |

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

**CLASSIFICATION:**

Flammable liquid: Category 4

Aspiration toxicant: Category 1

**LABEL:**

**Pictogram:**



**Signal Word:**Danger

**Hazard Statements:**

H227: Combustible liquid. H304: May be fatal if swallowed and enters airways.

**Precautionary Statements:**

P210: Keep away from flames and hot surfaces. – No smoking. P280: Wear protective gloves and eye/face protection. P301 + P310: IF SWALLOWED: Immediately call a POSION CENTER or doctor/physician. P331: Do NOT induce vomiting. P370 + P378: In case of fire: use water fog, foam, dry chemical or carbon dioxide (CO2) to extinguish. P403 + P235: Store in a well-ventilated place. Keep cool. P405: Store locked up. P501: Dispose of contents and container in accordance with local regulations.

**Contains:** NAPTHA (PETROLEUM), HYDROTREATED HEAVY

**Other hazard information:**

**HAZARD NOT OTHERWISE CLASSIFIED (HNOC):**None as defined under 29 CFR 1900. 1200.

**PHYSICAL / CHEMICAL HAZARDS**
Material can accumulate static charges which may cause an ignition. Material can release vapors that readily form flammable mixtures. Vapor accumulation could flash and/or explode if ignited. Combustible.
**HEALTH HAZARDS**
Repeated exposure may cause skin dryness or cracking. May be irritating to the eyes, nose, throat, and lungs.

**ENVIRONMENTAL HAZARDS**
No significant hazards.

**NFPA Hazard ID:** Health:     1 Flammability:     2 Reactivity:     0
**HMIS Hazard  ID:** Health:   1\* Flammability:     2 Reactivity:     0

**Note:**  This material should not be used for any other purpose than the indented 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.

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| 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 |
| NAPTHA (PERTORLEUM), HYDROTREATED HEAVY  | 64742-48-6 | 100% | H227, H304 |

\*All Concentrations are percent by weight unless material is a gas. Gas concentration are in the percent by volume.

As per paragraph (i) of 29 CFR 1910.1200, formulation is a 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).

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| SECTION 4                                                FIRST AID MEASURES |

 **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. 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 form high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extend of injury.

**EYE CONTACT**
Flush thoroughly with water. If irritation occurs, get medical assistance.

**INGESTION**
Seek immediate medical attention. Do not induce vomiting.

**NOTE TO PHYSICIAN**

If ingested, material may be aspirated into the lungs and cause chemical pneumonitis. Treat appropriately.

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| 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 supply to cool fire exposed surfaces and to protect personnel.

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

**FLAMMABILITY PROPERTIES**
**Flash Point [Method]:** 62°C (144°F) [ASTEM D-93]
**Flammable Limits (Approximate volume % in air)**: LEL: 0.7 UEL: 5.3
**Autoignition Temperature:** 335°C (635°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. See Section 5 for firefighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Service. 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 judgement of the emergency responders.

**SPILL MANAGEMENT**
**Land Spill:** Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do it without risk. All equipment used when handling the product must be grounded. Do not touch or walk through spilled material. Prevent entry into waterways, sewer, basements or confined areas. A vapor suppressing foam may be used to reduce vapors. Use clean non-sparking tools to collect absorbed material. Absorb or cover with dry earth, sand, or other non-combustible material and transfer to containers. Large Spills: Water spray may reduce vapor; but may not prevent ignition in closed spaces. Recover by pumping or with suitable absorbent.

**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.

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| SECTION 7                                                HANDLING AND STORAGE  |

 **HANDLING**

Avoid breathing mists or vapors. 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 ground 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).

**Loading/Unloading Temperature:** [Ambient]

**Transport Temperature:** [Ambient]

**Transport Pressure:** [Ambient]

**Static Accumulator:** This material is a static accumulator. A liquid is typically considered a nonconductive, static accumulator if its conductivity is below 100 pS/m (100x10E-12 Siemens per meter) and is considered a semiconductive, static accumulator if its conductivity is below 10,000 pS/m. Whether a liquid is nonconductive or semiconductive, the precautions are the same. A number of factors, for example liquid temperature, presence of contaminants, anti-static additives and filtration can greatly influence the conductivity of a liquid.

**STORAGE:**
The container choice, for example storage vessel, may effect static accumulation and dissipation. Keep container closed. Handle containers with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Storage containers should be grounded and bonded. Fixed storage containers, transfer containers and associated equipment should be grounded and bonded to prevent accumulation of static charge.

**Storage Temperature:** [Ambient]

**Storage Pressure:** [Ambient]

**Suitable containers/packaging:** Tankers; Tank trucks; Railcars; Barges; Drums

**Suitable Materials and Coatings (Chemical Compatibility):** Inorganic Zinc Coatings; Exposy Penolics; Teflon; Neoprene; Stainless Steel; Carbon Steel

**Unsuitable Materials and Coatings:** Vinyl Coatings; Natural Rubber; Butyl Rubber; Ethylene-proplyene-diene monomer (EPDM).

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| SECTION 8                                        EXPOSURE CONTROLS / PERSONAL PROTECTION |

**EXPOSURE LIMIT VALUES**

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

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| --- | --- | --- | --- | --- |
| Substance Name | Form | Limit/Standard | Note  | Source |
| NAPHTHA (PETROLEUM), HYDROTREATED HEAVY |  | TWA | 400 mg/m3 | 100 ppm  | N/A | OSHA Z1 |
| NAPHTHA (PETROLEUM), HYDROTREATED HEAVY | Vapor | RCP-TWA | 1200 mg/m3 | 171 ppm | Total Hydrocarbons | ExxonMobil |

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

No biological limits allocated.

**ENGINEERING CONTROLS**

The level of protection and toes 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. Use explosion-proof ventilation equipment.

**PERSONAL PROTECTION**

Personal protective equipment selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information of 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 levee 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 respirtator.

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 manufacture 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:
If prolonged or repeated contact is likely, chemical resistant gloves are recommended. If contact with forearms is likely, wear gauntlet style gloves.

**Eye Protection:**If contact is likely, safety glasses with side shields 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: If prolonged or repeated contact is likely, chemical, and 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.

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| 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:** Clear

**Color:** Clear

**Odor:** Odorless

**Odor Threshold:** N/D

**IMPORTANT HEALTH, SAFETY, AND ENVIRONMENTAL INFORMATION**

**Relative Density (at 15 °C):** .765

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

**Flash Point [Method]** 62°C (144°F) [ASTM D-93]

**Flammable Limits** **(Approximate volume % in air):** LEL: 0.7 UEL: 5.3

**Auto ignition Temperature:** 335°C (635°F)

**Vapor Density (Air =1):** 5.6 at 101 kPa

**Vapor Pressure:** < 0.041 kPa (0.31 mm Hg) at 20 °C

**Evaporation Rate (n-butyl acetate** = 1): 0.09

**pH:** N/A

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

**Solubility in Water:** Negligible

**Viscosity:** 1.56 cSt (1.56 mm2/sec) at 40°C | 2.02 cSt (2.02 mm2/sec) at 25°C)

**OTHER INFORMATION**

**Freezing Point:** N/D

**Melting Point:** N/A

**Pour Point:** -69°C (-92°F)

**Hygroscipic: No**

**Coefficient of Thermal Expansion:** 0.00078 V/VDEGC

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| SECTION 10                                                STABILITY AND REACTIVITY  |

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

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

**CONDITIONS TO AVOID:** Avoid heat, sparks, open flmaes and other ignition sources.

**MATERIALS TO AVOID:** Strong oxidizers

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

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

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| SECTION 11                                                   TOXICOLOGICAL INFORMATION |

 **INFORMATION ON TOXICOLOGICAL EFFECTS**

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| **Hazard Class** | **Conclusion / Remarks** |
| **Inhalation** |   |
| Acute Toxicity: No end point data for material. | Minimally Toxic. Based on the assessment of the components. |
| Irritation: No end point data for material. | Negligible hazard at ambient/normal handling temperatures. |
| **Ingestion** |   |
| Acute Toxicity: No end point data for material | Minimally Toxic. Based on assessment of components.  |
| **Skin** |   |
| Acute Toxicity: No end point data for material | Minimally Toxic. Based on assessment of components. |
| Skin Corrosion/Irritation: No end point data for material. | Negligible irritation to skin at ambient temperatures. Based on assessment of the components. |
| **Eye** |   |
| Serious Eye Damage/Irritation: No end point data for material | May cause mild, short-lasting discomfort to eyes. Based on assessment of components. |
| **Sensitization** |   |
| Respiratory Sensitization: No end point data for material | Not expected to be a respiratory sensitizer |
| Skin Sensitization: No end point date for material | Not expected to be a skin sensitizer. Based on assessment of the components. |
| **Aspiration:** Date available | Not expected to be an aspiration hazard. Based on phsico-chemical properties of the materials. |
| **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 the 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. |

**OTHER INFORMATION**

**For the product itself:**Vapor concentrations above recommended exposure levels are irritating to the eyes and the respiratory tract, may cause headaches and dizziness, are anesthetic and may have other central nervous system effects. Prolonged and/or repeated skin contact with low viscosity materials may defat the skin resulting in possible irritation and dermatitis. Small amounts of liquid aspirated into the lungs during ingestion or from vomiting may cause chemical pneumonitis or pulmonary edema.

**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

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| 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.

**PERSISTENCE AND DEGRADABILITY
Biodegradation:**
Base Oil Components— Expected to be inherently biodegradable

**Hydrolysis:** Transformation due to hydrolysis not expected to be significant.

**Photolysis:** Transformation due to photolysis not expected to be significant.

**Atmospheric Oxidation:** Expected to degrade rapidly in air.

**OTHER ECOLOGICAL INFORMATION**

**VOC (EPA METHOD 24):** 6.401 lbs/gal

**ECOLOGICAL DATA**

**Ecotoxicity**

|  |  |  |  |
| --- | --- | --- | --- |
| **Test** | **Duration** | **Organism Type** | **Test Results** |
| Aquatic – Acute Toxicity  | 96 hours | Oncorhynchusmykiss | LL0 1000 mg/l |
| Aquatic – Acute Toxicity | 48 hours | Daphnia magna | EL0 1000 mg/l |
| Aquatic – Acute Toxicity | 72 hours | Pseudokirchneriellesubcapitata | EL0 1000 mg/l |
| Aquatic – Chronic Toxicity | 21 days | Daphnia magna | NOELR 1mg/l |
| Aquatic – Acute Toxicity | 72 hours | Pseudokirchneriellesubcapitata | NOELR 100 mg/l  |

**Persistence, Degradability and Bioaccumulation Potential**

|  |  |  |  |
| --- | --- | --- | --- |
| **Media** | **Test Type** | **Duration** | **Test Results** |
| Water | Ready Biodegradability | 28 days | Percent Degraded 31.1 : similar material |

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| SECTION 13                                                 DISPOSAL CONSIDERATIONS |

Disposal recommendations based on material as supplied. Disposal must be in accordance 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, corrositivity 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 reside 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 PRESSURIZE, 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 INJUST OR DEATH.

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| SECTION 14                                                TRANSPORT INFORMATION  |

 **LAND (DOT):**

**Proper Shipping Name:** PETROLEUM DISTILLATES, N.O.S.

**Hazard Class & Division:** COMBUSTIBLE LIQUID

**ID Number:** 1268

**Packaging Group:** III

**ERG Number:** 128

**Label(s):** NONE

**Transport Document Name:** UN1268, PETROLEUM DISTILLATES, N.O.S., COMBUSTIBLE LIQUID, PG III

Footnote: This material is not regulated under 49 CFR in a container of 119 Gallon Capacity or less when transported solely by land, as long as the material is not a hazardous waste, a marine pollutant or specifically listed as a hazardous substance.

**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

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| SECTION 15                                                    REGULATORY INFORMATION |

**OSHA HAZARD COMMUNICATION STANDARD:** This material is considered hazardous in accordance with OHSA HazCom 2012, 29, CFR 1910. 1200.

**Complies with the following national/regional chemical inventory requirements:** AICS, DSL, ENCS, IECSC, KECI, TSCA

**PRODUCT REGISTRATION STATUS:** USA

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

**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 waterway/sewers which lead to surface water, must be reported to the Nation Response Center at 800-424-8802

**SARA (311/312) REPORTABLE HAZARD CATEGORIES:** Fire. Immediate Health. Delayed 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: None**

--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 P6 CARC 15 = MI 293

Code Key: CARC=Carcinogen; REPRO=Reproductive

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| 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):**

H227: Combustible liquid; Flammable Liquid, Cat 4

H304: May be fatal if swallowed and enters airways; Aspiration, Cat 1

**THIS SAFETY DATA SHEET CONTAINS THE FOLLOWING REVISIONS:**
Updates made in accordance with implementations of GHS requirements.
The information and recommendations contained herein are, to the best of Beacon Lubricants knowledge and belief, accurate and reliable as of the date issued. You can contact Beacon Lubricants to insure that this document is the most current available from Beacon Lubricants. The information and recommendations are offered for the user’s consideration and examination. It is the user’s responsibility to satisfy itself that the product is suitable for intended use. If the buyer repackages this product, it is the user’s responsibility to insure proper health, safety and other necessary information is included with and/or on the container. Appropriate warnings and safe-handling procedures should be provided to handlers and users. Alternation of this document is strictly prohibited. Expect to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted.