

SECTION 1: IDENTIFICATION of the Substance/Mixture and of the Company/Undertaking

1.1 PRODUCT IDENTIFIER:

- PRODUCT NAME: **WAX KLEEN**
- SYNONYMS: Not Applicable
- CHEMICAL NAME/CLASS Terpene Hydrocarbon Mixture
- PRODUCT CODE(S): 21.0807 (8 oz.)

1.2 RELEVANT IDENTIFIED USES OF THE MIXTURE OR USES ADVISED AGAINST

- IDENTIFIED USE: Removal of wax.
- USES ADVISED AGAINST: None specified.

1.3 DETAILS OF THE SUPPLIER OF THE SAFETY DATA SHEET

- DISTRIBUTED BY: Romanoff International Supply Corporation
- ADDRESS: 9 Deforest Street, Amityville NY, 11701, USA
- BUSINESS PHONE: 831-579-2938
- EMERGENCY PHONE: CHEMTEL (ACCOUNT #MIS4594445 COLLECT CALLS ACCEPTED)

USA, CANADA, PUERTO RICO & US VIRGIN ISLANDS: 1-800-255-3924

AUSTRALIA: 1-300-954-583 BRAZIL: 0-800-591-6042

CHINA: 400-120-0751 INDIA: 000-800-100-4086

MEXICO: 800-099-0731

ALL OTHER COUNTRIES: 1-813-248-0585

1.4 OTHER PERTINENT INFORMATION

- This SDS has been developed to address safety concerns affecting volume handling situations associated with this specific product and those involving warehouses and other workplaces where large numbers of these items are stored or distributed.


SECTION 2: HAZARDS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE:

REGULATION	CLASSIFICATION
OSHA HAZARD COMMUNICATION (GHS)	Flammable liquids (Category 3); Skin irritation (Category 2); Skin sensitization (Category 1); Aspiration hazard (Category 1)

2.2 LABEL ELEMENTS:

- OSHA – BASED ON GLOBALLY HARMONIZED

<p>SYSTEM Symbol(s): To the right</p> <p>Signal Word: Danger.</p> <p><u>Hazard statement(s)</u></p> <p>Flammable liquid and vapor. May be fatal if swallowed and enters airways. Causes skin irritation. May cause an allergic skin reaction.</p>	
---	---

SECTION 2: HAZARDS IDENTIFICATION (Continued)

Precautionary statement(s)

PREVENTION: Keep away from children. Read label before use. Keep away from heat/sparks/open flames/hot surfaces. - No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Avoid breathing mists, vapors, or spray. Wash skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/ protective clothing/ eye protection/ face protection.

RESPONSE: IF SWALLOWED: Immediately call a POISON CENTER or doctor. Do NOT induce vomiting. **IF ON SKIN (or hair):** Rinse skin with water/shower. If skin irritation or rash occurs: Get medical advice/ attention. Take off contaminated clothing and wash before reuse. In case of fire: Use Class B fire extinguisher.

STORAGE: Store in a well-ventilated place. Keep cool. Store locked up.

DISPOSAL: Dispose of contents/ container to an approved waste disposal plant.

2.3 OTHER PERTINENT DATA ON CHEMICAL AND PHYSICAL HAZARDS:

- HAZARDOUS MATERIALS IDENTIFICATION SYSTEM**

Health	2*	HMIS Personal Protective Equipment Rating: Occupational Use situations: B/C; Safety glasses and gloves/ body protection suitable to specific circumstances of use should be considered. * Skin sensitization.
Flammability	2	
Physical Hazard	0	
Protective Equipment	B/C	

- CANADIAN REGULATORY STATUS**

- This product is classified as hazardous under Canadian Controlled Products regulations (SOR-88-66). **WHMIS 2015:** See previous section. **Pre-2015 WHMIS:** It is classified – B3: Combustible Liquid; D2-A/B: Materials Causing Other Toxic Effects/Very Toxic Material/Toxic Material: This SDS contains all the information required by the CPR.



SECTION 3: COMPOSITION /INFORMATION ON INGREDIENTS

3.1 SUBSTANCES/MIXTURES

COMPONENT	CAS NUMBER	GHS HAZARD CLASSIFICATION FOR COMPONENT	% (w/w)
Terpene Hydrocarbons	5989-27-5	Flammable liquids (Category 3); Skin irritation (Category 2); Skin sensitization (Category 1); Aspiration hazard (Category 1); Acute aquatic toxicity (Category 1); Chronic aquatic toxicity (Category 1)	> 9
The remaining components of this product are not classified as hazardous in their existing concentrations.			Balance

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

AREA EXPOSED

Eye Contact

Flush with copious amounts of water for 15 minutes. “Roll” eyes during flush. Check for and remove contact lenses. Seek medical attention if irritation persists.

Skin Contact

Flush area with warm, running water for several minutes. Seek medical attention if irritation persists.

Inhalation

Obtain fresh air. Seek medical attention if symptoms persist.

Ingestion

If conscious only: Rinse mouth with water. Drink several cups of water. Do not induce vomiting. Contact a Poison Control Center or physician for instructions.

SECTION 4: FIRST AID MEASURES (Continued)

4.2 MOST IMPORTANT ACUTE AND CHRONIC EXPOSURE SYMPTOMS

- **ACUTE HEALTH EFFECTS:**

AREA EXPOSED

Eye Contact

May cause mild eye irritation, depending on duration of contact.

Skin Contact

Causes mild to moderate skin irritation, depending on duration of contact.

Inhalation

May cause mild respiratory tract irritation; symptoms may include coughing and sneezing depending on volume of mist/spray inhaled.

Ingestion

May cause gastrointestinal system irritation; symptoms may include pain, diarrhea, nausea and vomiting if large volumes are ingested. Ingestion of the product may also cause central nervous system effects. This product presents a hazard via aspiration: Inhalation may cause life-threatening damage to lungs

- **CHRONIC HEALTH EFFECTS:** This product contains a skin sensitizer. Prolonged or repeated exposure can cause allergic skin reactions (e.g., rashes, redness).
- **TARGET ORGANS:** Skin, eyes.

4.3 INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

- **GENERAL INFORMATION:** For all exposures: In case of accident, or if you feel unwell, seek medical advice immediately. Take this document and a copy of the label to the healthcare professional.
- **RECOMMENDATIONS TO PHYSICIANS:** Treat symptomatically.
- **MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:** Medical conditions impacting the target organs can be adversely impacted by over-exposures to the product.

SECTION 5: FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

- **RECOMMENDED FIRE EXTINGUISHING MEDIA:** Dry Powder, Foam, Carbon Dioxide, Halon, or any other suited to flammable liquids.
- **UNSUITABLE FIRE EXTINGUISHING MEDIA:** None known.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

- **NFPA FLAMMABILITY CLASSIFICATION:** Class II Combustible Liquid.
- **UNUSUAL HAZARDS IN FIRE SITUATIONS:** When involved in a fire, this material may produce irritating vapors and toxic gases (e.g., carbon monoxide, carbon dioxide).
 - Sensitivity to Mechanical Impact: Not sensitive.
 - Explosion Sensitivity to Static Discharge: When exposed to elevated temperatures, static electrical sparks can ignite vapors.



5.3 ADVICE FOR FIREFIGHTERS

- Wear Self Contained Breathing Apparatus and full protective equipment for fire response. Move containers from fire area if it can be done without risk to personnel. Otherwise, use water spray to keep fire-exposed containers cool. Contaminated equipment should be rinsed thoroughly with water before returning to service.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES

- **RESPONSE TO INCIDENTAL RELEASES:** Personnel who have received basic chemical safety training can generally handle small-scale releases (e.g., under 1 pint). For small releases, the minimum Personal Protective Equipment should be rubber gloves and rubber apron, splash goggles or safety glasses. Use caution during clean-up; avoid stepping into spilled liquid, as contaminated surfaces can be very slippery.
- **RESPONSE TO NON-INCIDENTAL RELEASES:** Generally, releases of this product will be no larger than the loss of one shipment of material (therefore, 1 pint or less). Subsequently, personnel can follow the instructions for incidental releases. As needed, respond to non-incident chemical releases of this product (such as the simultaneous destruction of several pallets of this product) by clearing the impacted area and contacting appropriate emergency personnel.
- **RESPONSE PROCEDURES FOR ANY RELEASE:** Absorb spilled liquid with polypads or other suitable absorbent materials. Rinse equipment/area thoroughly with detergent/water solution, if necessary.

6.2 ENVIRONMENTAL PRECAUTIONS

- Avoid response actions that can cause a release of a significant amount of the substance (1 liter or more) into the environment.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

- **SPILL RESPONSE EQUIPMENT:** Polypads or other absorbent material; detergent/water solution.

6.4 REFERENCES TO OTHER SECTIONS

- **SECTION 8:** For exposure levels and detailed personal protective equipment recommendations.
- **SECTION 13:** For waste handling guidelines.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

- **HYGIENE PRACTICES:** Keep out of reach of children. Follow good chemical hygiene practices. Do not smoke, drink, eat, or apply cosmetics in the chemical use area. Avoid inhalation of vapors, mists, sprays. Use in well-ventilated area. Avoid contact with skin or eyes. Remove contaminated clothing promptly. Clean up spilled product immediately.
- **HANDLING RECOMMENDATIONS:** Employees must be appropriately trained to use this product safely as needed. Keep containers closed when not in use. Open containers slowly on a stable surface. Use non-sparking tools. Bond and ground containers during transfers of material. If this product is transferred into another container, only use portable containers and dispensing equipment (faucet, pump, drip can) approved for flammable liquids. Never perform any welding, cutting, soldering, drilling, or other hot work on an empty container or piping until all liquid, vapors, and residue have been cleared.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

- **STORAGE RECOMMENDATIONS:** Post warning and "NO SMOKING" signs in storage and use areas, as appropriate. Have appropriate extinguishing equipment in the storage area (e.g., sprinkler system, portable fire extinguishers). Ensure all containers are correctly labeled. Store containers away from direct sunlight, sources of intense heat, or where freezing is possible. Store this product away from incompatible chemicals (See Section 10, Stability and Reactivity). Empty containers may contain residual material; therefore, empty containers should be handled with care. Material should be stored in secondary containers, or in a diked area, as appropriate. Storage and use areas should be covered with impervious materials. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged.

7.3 SPECIFIC END USES

- **RECOMMENDATIONS:** Place product away from children and animals.
- **INDUSTRIAL-SECTOR SPECIFIC SOLUTIONS: PROTECTIVE PRACTICES DURING MAINTENANCE OF CONTAMINATED EQUIPMENT --** Follow practices indicated in Section 6 (Accidental Release Measures).

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

- U.S. NATIONAL EXPOSURE LIMITS:

COMPONENT	ACGIH TLV	OSHA PEL	NIOSH REL	OTHER
Terpene Hydrocarbons	NE	NE	NE	NE

- **BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS:** There are no Biological Exposure Indices (BEIs) for components of this product.

8.2 EXPOSURE CONTROLS

- **ENGINEERING CONTROLS:** Use this product in well-ventilated environment. Safety showers, eye wash stations, and hand-washing equipment should be available.
- **RESPIRATORY PROTECTION:** None needed under normal conditions of use. Use NIOSH approved respirators if ventilation is inadequate to control mists or sprays.
- **HAND PROTECTION:** Nitrile or neoprene gloves should be used. If necessary, refer to U.S. OSHA 29 CFR 1910.138, or other appropriate local/national standards.
- **EYE PROTECTION:** Splash goggles or safety glasses. If necessary, refer to U.S. OSHA 29 CFR 1910.133, or other appropriate local/national standards.
- **BODY PROTECTION:** Use a body protection appropriate to task (e.g., lab coat, coveralls, or apron). Care should be taken to select protection for potentially exposed areas when prolonged exposure could occur in occupational settings.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

- (a) **APPEARANCE:** Orange-colored liquid.
- (b) **ODOR:** Fragrant, citrus odor.
- (c) **ODOR THRESHOLD:** Not determined.
- (d) **pH:** Not applicable.
- (e) **MELTING POINT/FREEZING POINT:** Approximately -74.3 °C (-101.7 °F).
- (f) **INITIAL BOILING POINT AND BOILING RANGE:** Approximately 176 - 177 °C (349 - 351 °F).
- (g) **FLASH POINT:** 46° C (115° F).
- (h) **EVAPORATION RATE (water=1):** Not determined
- (i) **FLAMMABILITY:** Class II Combustible liquid.
- (j) **UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS:** 6.1%/0.7%.

- (k) **VAPOR PRESSURE (mmHg @ 20°C):** 50 hPa (38 mmHg) at ca.50 °C (122 °F).
- (l) **VAPOR DENSITY:** 4.7
- (m) **RELATIVE DENSITY (water=1):** 0.88
- (n) **SOLUBILITY:** Immiscible.
- (o) **PARTITION COEFFICIENT: N-OCTANOL/WATER:** log Pow: 4.2.
- (p) **AUTO-IGNITION TEMPERATURE:** 245 °C (473 °F) at 995 hPa (746 mmHg).
- (q) **DECOMPOSITION TEMPERATURE:** Not determined.
- (r) **VISCOSITY:** 42 mm²/s @ 40° C (104° F)
- (s) **EXPLOSIVE PROPERTIES:** Not applicable.
- (t) **OXIDIZING PROPERTIES:** Not an oxidizer.

9.2 OTHER INFORMATION

- **VOC (less water & exempt):** Not applicable.
- **WEIGHT% VOC:** Not applicable.

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY

- Not reactive under typical conditions of use or handling; contact with water can generate some amount of heat.

10.2 CHEMICAL STABILITY

- Normally stable under standard temperatures and pressures.

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

- This product is not self-reactive or air-reactive; it will not undergo hazardous polymerization.

10.4 CONDITIONS TO AVOID

- Avoid contact with incompatible chemicals. Avoid exposure to conditions that can trigger ignition.

10.5 INCOMPATIBLE MATERIALS

- This product is not compatible with strong oxidizing agents and strong bases.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS

- Products of thermal decomposition of this product include carbon monoxide and carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

• ACUTE TOXICITY:

- **DEGREE OF IRRITATION:** Causes skin irritation.
- **SENSITIZATION:** Contains a skin sensitizer. Prolonged or repeated exposure can cause redness, rashes, and other allergic skin reactions.
- **TOXICOLOGY DATA:** The following toxicology data are available for the components of this product.
TERPENE HYDROCARBONS
LD₅₀ (Oral, Rat) =4,400 mg/kg
LD₅₀ (Skin, Rabbit) > 5,000 mg/kg
- **REVIEW OF ACUTE SYMPTOMS AND EFFECTS:** See Section 2 (Hazards Information) and Section 4 (First-Aid Measures) for further details.
 - **EYES:** May cause eye irritation.
 - **SKIN:** Can cause skin irritation, especially upon prolonged exposure.
 - **INHALATION:** Mists/sprays of this product may cause mild nasal irritation, especially if large volumes are inhaled.
 - **INGESTION:** Although not anticipated to be a significant route of occupational over-exposures, ingestion of this product may cause gastrointestinal problems.

• CHRONIC TOXICITY:

- **CARCINOGENICITY STATUS:** Terpene Hydrocarbons are rated as IARC - Group 3:Not classifiable as to its carcinogenicity to humans.
- **REPRODUCTIVE TOXICITY INFORMATION:** The components of this product are not reported to cause reproductive effects under typical circumstances of exposure at the concentrations present in this product.
- **MUTAGENIC EFFECTS:** The components of this product are not reported to cause reproductive effects under typical circumstances of exposure at the concentrations present in this product.
- **SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE:** Respiratory system irritant.
- **SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE:** Not applicable.

• OTHER INFORMATION

- **TOXICOLOGICALLY SYNERGISTIC PRODUCTS:** None known.
- **ADDITIONAL TOXICOLOGY:** None known.

SECTION 12: ECOLOGICAL INFORMATION

12.1 TOXICITY

- Based on available data, this product can be harmful to contaminated terrestrial plants or animals.
- Based on available data, this product can be very harmful or fatal to contaminated aquatic life.

12.2 PERSISTENCE AND DEGRADABILITY

- When released into the soil, the components of this product are expected to biodegrade, dissipate in soils via oxidation, or otherwise chemically degrade or photo-decompose via solar radiation.

12.3 BIOACCUMULATIVE POTENTIAL

- The components of this product are not anticipated to bioaccumulate in any significant quantities.

12.4 MOBILITY IN SOIL

- It is to be expected this product will have small mobility in soil. Some of the components may get into the soil and, ultimately, the ground water.

SECTION 13: DISPOSAL CONSIDERATION

13.1 WASTE TREATMENT METHODS

- **WASTE HANDLING RECOMMENDATIONS:** Prepare, transport, treat, store, and dispose of waste product according to all applicable local, U.S. State and U.S. Federal regulations, the applicable Canadian standards, or the appropriate standards of the nations of the European Community.
- **PRECIOUS METAL RECLAMATION:** When applicable and practical, users of the product may wish to utilize precious metal reclamation services for final disposition of wastes.

SECTION 14: TRANSPORT INFORMATION

14.1 DANGEROUS GOODS BASIC DESCRIPTION AND OTHER TRANSPORT INFORMATION

- This material is hazardous for shipment, per the Hazardous Materials Regulations or Dangerous Goods Codes. Please contact the manufacturer if there are questions pertinent to the shipment of this product.

14.2 ENVIRONMENTAL HAZARDS

- None described, as related to transportation.

14.3 SPECIAL PRECAUTIONS FOR USERS

- Not applicable.

14.4 TRANSPORT IN BULK

- Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1 SAFETY, HEALTH, AND ENVIRONMENTAL REGULATIONS SPECIFIC FOR THE PRODUCT.

• OTHER IMPORTANT U.S. REGULATIONS

- **U.S. SARA THRESHOLD PLANNING QUANTITY:** Not applicable.
- **U.S. SARA HAZARD CATEGORIES (SECTION 311/312, 40 CFR 370-21):** ACUTE: Yes; CHRONIC: Yes; FIRE: Yes; REACTIVE: No; SUDDEN RELEASE: No
- **U.S. CERCLA REPORTABLE QUANTITY (RQ):** Not applicable.
- **U.S. TSCA INVENTORY STATUS:** All components of this product are listed on the TSCA Inventory.
- **CALIFORNIA SAFE DRINKING WATER ACT (PROPOSITION 65) STATUS:** Not applicable.

• INTERNATIONAL REGULATIONS

- **CANADIAN DSL/NDSL INVENTORY STATUS:** The listed components of this product are on the DSL/NDSL Inventory.
- **CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:** The components of this product are not on the CEPA Priorities Substances Lists.

SECTION 16: OTHER INFORMATION

16.1 INDICATION OF CHANGE.

- **CHANGE INDICATED:** Prepared per OSHA Hazard Communication Standard (29 CFR 1910.1200).
- **DATES OF PUBLICATION:** January 28th, 2020 (New)
- **SUPERSEDES:** Not applicable.

16.2 KEY LITERATURE REFERENCES AND SOURCES FOR DATA

- **SAFETY DATA SHEETS FOR COMPONENT PRODUCTS.**
- **ECHA:** European Chemical Hazards Agency <http://echa.europa.eu/en/information-on-chemicals/>
- **TOXNET:** <http://toxnet.nlm.nih.gov/>

16.3 ABBREVIATIONS AND ACRONYMS.

ALL SECTIONS: **OSHA:** U.S. Federal Occupational Safety and Health Administration. **WHMIS:** Canadian Workplace Hazardous Materials Standard. **GHS:** Globally Harmonized System of Classification of Chemical Substances. **REACH:** European Union regulation, Registration, Evaluation, Authorization and Restriction of Chemical substances.

SECTION 2: **CAS Number:** Chemical Abstract Service Number, which is used by the American chemical Society to uniquely identify a chemical. **EINECS:** European Inventory of Existing Commercial Substances.

SECTION 3: HAZARDOUS MATERIALS IDENTIFICATION

SYSTEM RATING: This is a rating system used by industry to summarize physical and health hazards to chemical users and was originally developed by the National Paint and Coating Association. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.

SECTION 5: **NFPA:** National Fire Protection Association. **NFPA FLAMMABILITY CLASSIFICATION:** The NFPA uses the flash point (F.I.P.) and boiling point (BP) to classify flammable or combustible liquids. Class IA: F.I.P. below 73°F and BP below 100°F. Class IB: F.I.P. below 73°F and BP at or above 100°F. Class IC: F.I.P. at or above 73°F and BP at or above 100°F. Class II: F.I.P. at or above 100°F and below 140°F. Class IIIA: F.I.P. at or above 140°F and below 200°F. Class IIIB: F.I.P. at or above 200°F. **NFPA HAZARDOUS MATERIALS RATING:** This is a rating system used to summarize physical and health hazards to firefighters. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.

SECTION 8: **NE:** Not established. **ACGIH:** American Conference of Government Industrial Hygienists; **TWA:** Time-Weighted Average (over an 8-hour work day); **STEL:** Short-Term Exposure Limit (15 minute average, no more than 4-times daily and each exposure separated by one-hour minimally); **C:** Ceiling Limit (concentration not to be exceeded in a work environment). **PEL:** Permissible Exposure Limit. **NIOSH:** National Institute of Occupational Safety and Health; **REL:** Recommended Exposure Limit; **IDLH:** Immediately Dangerous to Life and Health Concentrations. Note: In July 1992, a court ruling vacated the more protective PELs set by OSHA in 1989. Because OSHA may enforce the more protective levels under the "general duty clause", both the current and vacated levels are presented in this document. **ppm:** Parts per Million. **mg/m³:** Milligrams per cubic meter. **mppcf:** Millions of Particles per Cubic Foot. **BEI:** Biological Exposure Limit. **EL:** Exposure Limit (United Kingdom). Federal Republic of Germany (**DFG**) Maximum Concentration Values in the Workplace (**MAKs**)

SECTION 9: **pH:** Scale (0 to 14) used to rate the acidity or alkalinity of aqueous solutions. For example, a pH value of 0 indicates a strongly acidic solution, pH of 7 indicates a neutral solution, and a pH value of 14 indicates an extremely basic solution. **FLASH POINT:** Temperature at which a liquid generates enough flammable vapors so that ignition may occur. **AUTOIGNITION TEMPERATURE:** Temperature at which spontaneous ignition occurs. **LOWER EXPLOSIVE LIMIT (LEL):** The minimal concentration of flammable vapors in air which will sustain ignition. **UPPER EXPLOSIVE LIMIT (UEL):** The maximum concentration of flammable vapors in air which will sustain ignition. ≈: Approximately symbol.

SECTION 11: CARCINOGENICITY STATUS: **NTP:** National Toxicology Program. **IARC:** International Agency for Research on Cancer. **REPRODUCTIVE TOXICITY INFORMATION:** **Mutagen:** Substance capable of causing chromosomal damage to cells. **Embryotoxin:** Substance capable of damaging the developing embryo in an overexposed female. **Teratogen:** Substance capable of damaging the developing fetus in an overexposed female. **Reproductive toxin:** Substance capable of adversely affecting male or female reproductive organs or functions. **TOXICOLOGY DATA:** **LD₅₀ or LC₅₀:** The Lethal Dose or Lethal Concentration of a substance which will be fatal to a given percentage (xx) of exposed test animals by the designate route of administration. This value is used to access the toxicity of chemical substances to humans. **TD₅₀ or TC₅₀:** The Toxic Dose or Toxic Concentration of a substance which will cause an adverse effect to a given percentage (xx) of exposed test animals by the designate route of administration.

SECTION 12: TL_m - Median Tolerance Limit

SECTION 13: RCRA: Resource Conservation and Recovery Act. The regulations promulgated under this act under Act are found in 40 CFR, Sections 260 ff, and define the requirements of hazardous waste generation, transport, treatment, storage, and disposal. **EPA RCRA Waste Codes:** Defined in 40 CFR Section 261.

SECTION 15: CERCLA: Comprehensive Environmental Response Compensation and Liability Act (a.k.a. "Superfund") and SARA: (Superfund Amendment and Reauthorization Act). The regulations promulgated under this Act are located under 40 CFR 300 ff. and provide "community right-to-know" requirements. **DSL/NDSL:** Canadian Domestic Substances and Non-Domestic Substances Lists.

This Safety Data Sheet (SDS) complies with the requirements of the U.S. Federal Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200, as updated in 2012), the American National Standards Institute (Z400.1, 1998), and equivalent state Standards. It has also been developed in accordance with the Canadian Workplace Hazardous Materials Standard and the United Nations Globally Harmonized System of Classification of Chemicals, as well as European Union requirements under REACH (Registration, Evaluation, Authorization and Restriction of Chemical substances, perEC 1907/2006) and Directive 91/155/EC. Refer to Section 16 of this document for the definition of terms and abbreviations.