G.K. Chemical Specialties Co. Inc.
90 Barbados Blvd.
Scarborough, Ontario M1J 1K9
Tel: (416) 261-7182 Fax: (416) 261-5663

SAFETY DATA SHEET (SDS)

PRODUCT NAME: G.K. LEMON OIL	
HEALTH HAZARD RATING:	(0)- MINIMAL HAZARD
FLAMMABILITY HAZARD RATING:	(1)- SLIGHT HAZARD
REACTIVITY HAZARD RATING:	(0)- MINIMAL HAZARD
PERSONAL PROTECTION:	a - (Splash goggles)
HAZARD ALERT SIGN:	 GHS08

SECTION 1 – **IDENTIFICATION**	
PRODUCT IDENTIFIER	
PRODUCT NAME	G.K. LEMON OIL
MANUFACTURER'S NAME AND ADDRESS **EMERGENCY PHONE NO.**	G.K. Chemical Specialties Co. Inc. 90 Barbados Blvd. Scarborough, Ontario M1J 1K9 (416) 261-7182 / 905 427-7605/ 416-526-4037 CHEMTREC(24 HR EMERGENCY) 1-800-424-9300 International CHEMTREC: 1-703-527-3887
SUPPLIER'S NAME AND ADDRESS **EMERGENCY PHONE NO.**	
CHEMICAL NAME	NOT APPLICABLE
CHEMICAL FAMILY	NOT APPLICABLE
TRADE NAME AND SYNONYMS	MOT APPLICABLE
MATERIAL USE	INDUSTRIAL, INSTITUTIONAL, COMMERCIAL

G.K. Chemical Specialties Co. Inc. has compiled the information and recommendations contained in this Safety Data Sheet from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the SDS was prepared. Although reasonable precautions have been taken in the preparation of the data contained herein, it is offered solely for your information, consideration and investigation.

G.K. Chemical Specialties Co. Inc. extends no warranty and assumes no responsibility as to the accuracy of the content or sufficiency of the information and expressly disclaims all liability for reliance thereon. This SDS provides guidelines for the safe handling of this product. It does not and cannot advise on all possible situations, therefore, your specific use of this product should be evaluated to determine if additional precautions are required. Individuals exposed to this product should read and understand this information and be provided pertinent training prior to working with this product.

G.K. Chemical Specialties Co. Inc. assumes no responsibility for personal injury or property damage to vendors, users or third parties caused by the material. Such vendors or users assume all risks associated with the use of the material.

INGREDIENTS. This SDS, under section of Ingredients, contains all ingredients listed under INGREDIENT DISCLOSURE LIST P.C. 1987-2719, 20/1/88 CANADA GAZETTE PART II VOL. 122, No 2 of HAZARDOUS PRODUCT ACT.
Percentage range of concentration of ingredients is expressed as percentage by weight of the total weight of the product. Ingredient List does not necessarily list all ingredients in the formulation and does not necessarily list all ingredient range of concentration, other than ingredients under the Disclosure List.

T.L.V. (units) or Threshold Limit Values refer to the limiting concentrations recommended by the Ministry of Labour. These values were adopted by the American Conference of Governmental Industrial Hygienists (A.C.G.I.H.). The figures refer to time-weighted average concentrations as P.P.M. (V/V) or mg/m^3 for a normal working day or at any time for some materials.

"C.A.S REG. No." means the identification number assigned to a chemical substance by the Chemical Abstracts Service Division of the American Chemical Society.

"LC 50" means the concentration of a substance in air that when administered by means of inhalation over a specified length of time in an animal assay, is expected to cause the death of 50 per cent of a defined animal population.
"LD 50" means the single dose of a substance that, when administered by a defined route in an animal assay, is expected to cause death of 50 per cent of a defined animal population.

FLASH POINT. The minimum temperature at which a substance gives off flammable vapors which in contact with spark or flame will ignite.

NIOSH- National institute for occupational safety and health
STEL- Short term exposure limit
TWA- Time-weighted average
PEL- Permissible exposure limit
ACGIH- American conference of governmental industrial hygienist
OSHA- Occupational safety and health act

SECTION 2 – HAZARD IDENTIFICATION

Dangerous Goods- WHMIS: CLASS B, DIV. 3, CLASS D,2B

OSHA HAZARDS: Target Organ Effect

Signal Words: **Danger.**

GHS CLASSIFICATION
Aspiration hazard – Category 1

GHS Label Elements, including precautionary statements: Hazard Statements:
HAZARD STATEMENTS
H304- May be fatal if swallowed and enters airways
H302-Harmful if swallowed

PREVENTION (see also section 4 –First aid and measures)
P264- Wash skin thoroughly after handling
P405- Store locked up
P233- Keep container tightly closed.

RESPONSE
P305+P351+P338- IF IN EYES: Rinse cautiously with water for several minutes: Remove contact lenses if present and easy to do so. Continue rinsing.
P337 + P313: If eye irritation persists: Get medical advice/attention
P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P301 + P310; IF SWALLOWED: Immediately call a POISON CENTER or doctor/ physician
P303 + P361 + P353: IF ON SKIN (or hair): Remove/ take off immediately all contaminated clothing. Rinse skin with water/shower
P370 + 378: In case of fire, use dry chemical to extinguish

POTENTIAL HEALTH EFFECTS
EYES: May cause eye irritation
INHALATION: May be harmful if inhaled.
SKIN: May be harmful if absorbed through skin.
INGESTION: May be harmful if swallowed. Aspiration into lungs may cause pneumonia or death.

SECTION 3 – COMPOSITION/INFORMATION ON INGREDIENTS				
HAZARDOUS INGREDIENTS	**APPROXIMATE CONCENTRATION %**	**C.A.S., N.A. OR U.N. NUMBERS**	**LD50 {SPECIFY SPECIES & ROUTE}**	**LC 50 {SPECIFY SPECIES & ROUTE}**
Distillates (petroleum), hydrotreated light paraffinic	40 - 50	64742-55-8	Oral (Rat): >5,000 mg/kg Dermal (Rabbit): >5,000mg/kg	Inhalation: Rat >5 mg/L/4h
White Mineral oil (petroleum)	40 - 50	8042-47-5	Oral (Rat): >5,000 mg/kg Dermal (Rabbit): >2,000 mg/kg	Inhalation: Rat >5 mg/L/4h.
Cold Pressed Lemon oil	1 - 3	84929-31-7	Oral (Rat): 2840 mg/kg Dermal (Rabbit): >5,000mg/kg	

SECTION 4 – FIRST AID MEASURES	
SKIN CONTACT	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention if necessary.
EYE CONTACT	Immediately hold eyelids open and flush with water for at least 15 minutes. Seek medical attention.
INHALATION	For excessive inhalation remove casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary
INGESTION	May be harmful if swallowed. Do not induce vomiting. Seek immediate medical attention. Never give anything by mouth to an unconscious or convulsing person. If vomiting occur spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Danger of aspiration of vomit into the lungs can cause serious damage and chemical pneumonitis.
NOTES TO PHYSICIAN	Treatment based on sound judgment of physician and individual reaction of patient. **Eye contact:** May cause eye irritation. Symptoms may include stinging and tearing **Inhalation:** This product has a low vapour pressure and is not expected to present an inhalation exposure at ambient conditions. Upon heating to high temperatures, or mechanical action which may produce vapours, mists or fumes, inhalation of product may cause irritation of the breathing passages. **Skin contact:** May cause skin irritation. **Ingestion:** May be fatal if swallowed and enters airways. Irritating to mouth, throat and stomach. Can cause nausea, vomiting and diarrhea. **ASPIRATION HAZARD:** Aspiration into the lungs during swallowing or subsequent vomiting may cause chemical pneumonitis, which can be fatal.

SECTION 5 – FIRE-FIGHTING MEASURES	
FLASH POINT (^{0}C)	188.33^{0}C (371^{0}F)
FLASH POINT METHOD	Open Cup
AUTOIGNITION TEMPERATURE (^{0}C)	>320^{0}C (608^{0}F)
UPPER FLAMMABLE LIMIT (% VOL.)	19.9 %
LOWER FLAMMABLE LIMIT (% VOL.)	4.0 %
HAZARDOUS COMBUSTION PRODUCTS	Carbon Dioxide (CO_2), Carbon monoxide. May release smoke and irritating vapours when heated to decomposition
UNUSUAL FIRE/ EXPLOSION HAZARDS	This material will burn although it is not easily ignited. Containers can rupture and explode under fire conditions due to pressure and vapor buildup. Heated vapors may form explosive mixture with air. Vapors may travel across the ground and reach an ignition source.
SENSITIVITY TO MECHANICAL IMPACT	No
SENSITIVITY TO STATIC DISCHARGE	No
EXTINGUISHING MEDIA	Water fog, Alcohol-resistant foam, dry powder or Carbon Dioxide. Use media appropriate for surrounding fire. Do not use a solid water stream as it may scatter and spread fire.
SPECIAL FIRE FIGHTING PROCEDURES	Fire fighters should wear full protective clothing, including self-contained breathing equipment. Vapor may travel considerable distance to source of ignition and flash back. Cool exposed containers with water spray.

SECTION 6 – ACCIDENTAL RELEASE MEASURES	
LEAK AND SPILL PROCEDURE	Stop leak and ventilate the area. Avoid breathing mist or vapours. Eliminate source of ignition. Move containers from spill area if safe to do so. Absorb spill with vermiculite or other noncombustible absorbent material. Place in a suitable container (with lid tightly covered) for disposal. For large spills, dike spill, recover free liquid, collect with an electrically protected vacuum cleaner or by wet-brushing. Use absorbent material to dry area. Put all material into appropriate waste containers. Rinse with water. Avoid contaminating ground water.
ENVIRONMENTAL PRECAUTIONARY	Prevent entry into sewers or streams. Any release to the environment may be subject to federal or local reporting requirements.
PERSONAL PRECAUTIONARY MEASURES	Wear protective clothing during cleanup. See section 8 for recommendations on the use of personal protective equipment. Avoid breathing vapors, mist or gas. Restrict access to area until completion of clean-up.

SECTION 7 – HANDLING AND STORAGE	
HANDLING PROCETURES	Avoid contact with eyes. Avoid ingestion. Do not breathe vapors. Wear personal protective equipment appropriate to task. Use good industrial hygiene practices in handling this product. Keep container closed when not in use. Eating, drinking and smoking should be prohibited in areas where this product is handled, stored and processed. Workers should wash hands and face before eating. Launder contaminated clothing prior to reuse.
STORAGE NEEDS	Keep container tightly closed. Store in a cool area. Keep in the original container or an approved alternative. Store and use away from heat, sparks, open flame or any other ignition source. Store containers carefully and prevent leakage.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION	
VENTILATION REQUIREMENTS	Use only with adequate ventilation to prevent build-up of vapors. When the following figures listed are exceeded provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective. **Occupational exposure limits** ACGIH TLV TWA: 5 mg/m^3 (mist) ACGIH STEL 10 mg/m^3 (mist)
PROTECTIVE EQUIPMENT	Ensure that eyewash stations are proximal to the work-station location. The selection of personal protective equipment will vary depending on the condition of use
EYE/TYPE	Splash goggles, safety glasses or face shields are recommended to safeguard against potential eye contact, irritation, or injury.
RESPIRATORY/TYPE	If required approved/ certified vapor respirator. Any chemical cartridge respirator with organic vapor cartridges is recommended.
GLOVE/TYPE	Nitrile, Butyl impervious gloves
FOOTWEAR/TYPE	Boots
BODY/TYPE	Protective clothing is required. Use impervious clothing (apron, coveralls). The selection of personal protective equipment will vary depending on the conditions of use.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES	
APPEARANCE – PHYSICAL STATE	Clear yellow liquid
ODOUR	Lemon odour
ODOUR THRESHOLD (PPM)	Not available
PH	Not applicable
MELTING POINT (^{0}C)	See freezing point
BOILING POINT (^{0}C)	>260-704^{0}C (500-1,299^0 F) INITIAL
FREEZING POINT (^{0}C)	-12^{0}C (10^0 F)
EVAPORATION RATE	NO DATA
FLAMMABILITY	Low fire hazard. This material must be heated before ignition
FLASH POINT (^{0}C)	>188.33^{0}C (371^{0}F)
AUTO IGNITION TEMPERATURE	>320^{0}C (608^{0}F)
DECOMPOSITION TEMPERATURE	Not available
VAPOUR DENSITY	(air= 1) >1
VAPOUR PRESSURE	@ 37.8^{0}C (100^0 F) <0.01 mmHg
SOLUBILITY	Not soluble in water
VISCOSITY	Thin liquid
% VOLATILE BY VOLUME	Not established
SPECIFIC GRAVITY	0.85 ± 0.02 gm / cm^3

SECTION 10 – STABILITY AND REACTIVITY	
REACTIVITY	Not self-reactive, self-heating
CHEMICAL STABILITY	Stable
POSSIBILITY OF HAZARDOUS REACTIONS	Under normal conditions of storage and use, hazardous reaction will not occur.
CONDITIONS TO AVOID	Keep away from heat, flame and sparks.
INCOMPATIBLE MATERIALS	May react with strong oxidizing agents, such as chlorates, nitrates, peroxides.
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon Dioxide (CO_2), Carbon monoxide and other toxic fumes

SECTION 11 –TOXICOLOGICAL INFORMATION	
TOXICITY EFFECTS ON ANIMALS	**For Distillates (petroleum), hydrotreated light paraffinic (64742-55-8):** Acute Oral Toxicity LD50 (Rat): >5,000 mg/kg. Acute Dermal Toxicity LD50 (Rabbit): >5,000 mg/kg. **For White mineral oil (petroleum) (8042-47-5):** Acute Oral Toxicity LD50 (Rat): >5,000 mg/kg Acute Dermal Toxicity LD50 (Rabbit): >2,000 mg/kg. **For Cold Pressed Lemon OIL (84929-31-7):** Acute Oral Toxicity LD50 (Rat): 2,840 mg/kg. Acute Dermal Toxicity LD50 (Rabbit): >2,000 mg/kg
TOXIC EFFECTS ON HUMANS	**Skin** contact can cause drying. Severity depends on the amount and duration of exposure**.** **Eyes:** Liquid contact will cause stinging redness, swelling and tearing. **Inhalation:** Mist or vapor can irritate the throat and lungs. Breathing excessive amount of this product may be harmful. **Ingestion:** If swallowed this material may irritate the mucous membranes of the mouth throat and esophagus. May cause nausea, vomiting and diarrhea. Aspiration of this material into the lungs may result in damage or death.
CHRONIC EFFECTS ON HUMANS	Repeated or prolonged skin contact may cause defatting of the skin which can lead to dermatitis.
CARCINOGENICITY	No evidence
TERATOGENICITY	No evidence
MUTAGENICITY	No evidence
REPRODUCTIVE EFFECTS	Not expected to have Reproductive effects.

SECTION 12 –ECOLOGICAL INFORMATION	
ECOTOXICITY DATA	**For Distillates (petroleum), hydrotreated light paraffinic (64742-55-8):** Incomplete ecotoxicological data are available for this product. May cause fouling of aquatic organisms. Expected to be practically non-toxic. Major constituents are expected to be biodegradable, but the product contains components that may persist in the environment. Product contains constituents with the potential to bioaccumulate. Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential. **For white mineral oil (petroleum) (8042-47-5):** This product is stable in water, and can be mechanically separated from water. Expected to be practically non-toxic. Acute Toxicity to fish, LC50, Lepomis macrochirus: >10,000 mg /L /96 h. Acute Toxicity to aquatic invertebrates EC50, Daphnia magna (water flea): >100 mg /L / 48 h. **For Cold Pressed Lemon Oil (84929-31-7):** No actual figures found. The product contains components that are expected to be toxic to aquatic life.

BIODEGRADABILITY	No information found
PRODUCTS OF DEGRADATION	No information found

SECTION 13 – DISPOSAL CONSIDERATIONS	
WASTE DISPOSAL	Disposal of all wastes must be done in accordance with municipal, provincial and federal regulations
INFORMATION ON SAFE HANDLING FOR DISPOSAL INCLUDING ANY CONTAMINATED PACKAGING	Suitable waste facility

SECTION 14 – TRANSPORT INFORMATION	
UN NUMBER	Not applicable
UN PROPER SHIPPING NAME	Not applicable
TRANSPORT HAZARD CLASS	Not applicable
PACKAGING GROUP	Not applicable
ENVIRONMENTAL HAZARDS	NO
TRANSPORT IN BULK, if applicable	NOT AVAILABLE
SPECIAL PRECAUTIONS/PROVISIONS	NIL

SECTION 15 – REGULATORY INFORMATION	
SAFETY HEALTH & ENVIRONMENTAL REGULATIONS SPECIFIC TO THE PRODUCT	U.S. TSCA inventory Status: All components of this product are either on the Toxic Substances Control Act (TSCA) INVENTORY List or exempt. Canadian DSL Inventory Status: All components of this product are either on the Domestic Substances List (DSL) or the Non-Domestic Substances List (NDSL) or exempt.

SECTION 16 – OTHER INFORMATION	
PREPARED BY:	Gus Kaklamanos - Chemist
TELEPHONE NO.:	416-261-7182
DATE OF THE LATEST REVISION OF SDS:	October 2, 2017