



G.K. Chemical Specialties Co. Inc.
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SAFETY DATA SHEET (SDS)

PRODUCT NAME: G.K. VARSOL (MINERAL SPIRITS)	
HEALTH HAZARD RATING:	(1)- SLIGHT HAZARD
FLAMMABILITY HAZARD RATING:	(2)- MODERATE HAZARD
REACTIVITY HAZARD RATING:	(0)- MINIMAL HAZARD
PERSONAL PROTECTION:	H - (Splash goggles, Gloves, Synthetic apron, Vapor respirator)
HAZARD ALERT SIGN:	GHS02 GHS08 GHS07

SECTION 1 – IDENTIFICATION

PRODUCT IDENTIFIER

PRODUCT NAME	G.K.VARSOL
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	STODDARD SOLVENT
CHEMICAL FAMILY	PETROLEUM DISTILLATE
TRADE NAME AND SYNONYMS	MINERAL SPIRITS, HIGH FLASH NAPHTHA
MATERIAL USE	INDUSTRIAL SOLVENT

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/m³ 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

OSHA HAZARDS: Flammable liquid, Target Organ Effect, Irritant.

Target Organs: Nerves, Kidney, Cardiovascular system, Gastrointestinal tract, Liver.

Signal Words: Danger.

GHS CLASSIFICATION

Flammable liquids- Category 3

Acute toxicity–Inhalation (vapors)- Category 4

Acute toxicity-Oral–Category 4

Skin corrosion / irritation- Category 2

Serious eye damage/ eye irritation - Category 2b

Specific target organ toxicity, single exposure - Category 3

Aspiration hazard – Category 1



GHS Label Elements, including precautionary statements: Hazard Statements:

HAZARD STATEMENTS

H226- Flammable liquid and vapor

H304- May be fatal if swallowed and enters airways

H316- Causes skin irritation

H319- Causes serious eye irritation

H335- May cause respiratory irritation

H336- May cause drowsiness or dizziness

H302-Harmful if swallowed

H373- May cause damage to organs through prolonged or repeated exposure



PREVENTION (see also section 4 –First aid and measures)

P210- Keep away from heat/sparks/open flames/hot surfaces

P261- Avoid breathing dust/fumes/gas/mist/vapors/spray

P280- Wear protective gloves / protective clothing / eye protection / face protection

P271- Use only outdoors or in a well-ventilated area

P264- Wash skin thoroughly after handling

P242- Use only non-sparking tools.

P243- Take precautionary measures against static discharge

P405- Store locked up

P233- Keep container tightly closed.

P202- Do not handle until all safety precautions have been read and understood.



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: Causes serious eye irritation INHALATION: May be harmful if inhaled. Causes respiratory tract irritation. Vapors may cause drowsiness and dizziness. Can cause irritation of mucous membranes and central nervous system depression. Aspiration into lungs may cause pneumonia or death SKIN: May be harmful if absorbed through skin. Causes skin irritation INGESTION: May be harmful if swallowed
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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}
Stoddard solvent (mineral spirits)	100	8052-41-3	Oral (Rat): >5,000 mg/kg Dermal (Rabbit): >3,000mg/kg	Inhalation: Rat >5.5 mg/L/4h

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. Take a copy of the label and / or SDS with the victim to the health professional.
NOTES TO PHYSICIAN	Treatment based on sound judgment of physician and individual reaction of patient. Eye contact: Causes serious eye irritation. Symptoms may include stinging and tearing Inhalation: Harmful if inhaled in excessive amounts. Can cause central nervous system depression. May cause drowsiness, dizziness, headache, nausea, breathing difficulties and other symptoms of central nervous system depression. Skin contact: May cause skin irritation. (Redness, Swelling, Itching and Dryness) Ingestion: Can cause central nervous system depression. 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 (°C)	43°C (109.4°F)
FLASH POINT METHOD	Closed Cup or Tag
AUTOIGNITION TEMPERATURE (°C)	229°C (444.2°F)
UPPER FLAMMABLE LIMIT (% VOL.)	13.3 %
LOWER FLAMMABLE LIMIT (% VOL.)	1.0 %

HAZARDOUS COMBUSTION PRODUCTS	Carbon Dioxide (CO ₂), Carbon monoxide.
UNUSUAL FIRE/ EXPLOSION HAZARDS	Flammable liquid and vapors (Category 3). Explosive in presence of open flames, sparks, or heat. 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	yes
SENSITIVITY TO STATIC DISCHARGE	yes
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. Use only non-sparking tools and equipment in the clean-up process. 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. Solvent soaked materials may spontaneously combust. 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. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Wear personal protective equipment appropriate to task. Use good industrial hygiene practices in handling this product. Keep container closed when not in use. Take measure to prevent the buildup of electrostatic charge. Use only non-sparking tools. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. 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. Do not cut, grind, weld or drill on or near containers. CAUTION: Cloth or paper soaked in this product may undergo spontaneous ignition. Never discard wiping cloths soaked in this product carelessly. Do not put wet cloth or paper in a garbage bag or garbage container. Dry carefully before discarding.
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. Store separate from oxidizing materials.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION	
VENTILATION REQUIREMENTS	For outdoors use no critical hazards. For indoor use good ventilation is recommended. Use only with adequate ventilation to prevent build-up of vapors. Open all windows and doors. Use only with a cross ventilation of moving fresh air across the work area. If strong odor is noticed or you experience slight dizziness, headache, nausea, or eye-watering- STOP- ventilation is inadequate. Leave area immediately. 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 For Stoddard solvent (8052-41-3): ACGIH TLV (United states, 1/2008) TWA: 100 ppm 8 hours (525 mg/m³) OSHA PEL 1989 (United States, 3/1989) TWA: 100 ppm 8 hours (525 mg/m³) NIOSH REL (United States, 6/2008) TWA: 350 mg/m³ 10 hours, CEIL: 1800 mg/m³ 15 minutes OSHA PEL (United States, 11/2006) TWA: 500 ppm 8 hours (2900 mg/m³ 8 hours
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	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 liquid
ODOUR	Mild Petroleum
ODOUR THRESHOLD (PPM)	Not available
PH	Not applicable
MELTING POINT (°C)	See freezing point
BOILING POINT (°C)	159°C (318.2° F) INITIAL
FREEZING POINT (°C)	-76°C (--105° F)
EVAPORATION RATE	0.14 (n-Butyl Acetate=1)
FLAMMABILITY	Flammable
FLASH POINT (°C)	43°C (109°F)
AUTO IGNITION TEMPERATURE	229°C (444.2°F)
DECOMPOSITION TEMPERATURE	Not available
VAPOUR DENSITY	(air= 1) 4.9 at 101 kPa
VAPOUR PRESSURE	@ 20°C) 2.2 mmHg
SOLUBILITY	Not soluble in water
VISCOSITY	Thin liquid
% VOLATILE BY VOLUME	100 %
SPECIFIC GRAVITY	0.79 ± 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. Avoid incompatible materials. Do not allow vapors to accumulate in low or confined areas.
INCOMPATIBLE MATERIALS	Strong oxidizing agents. May attack some plastic materials
HAZARDOUS DECOMPOSITION PRODUCTS	Carbon Dioxide (CO ₂), Carbon monoxide.

SECTION 11 –TOXICOLOGICAL INFORMATION	
TOXICITY EFFECTS ON ANIMALS	For Stoddard solvent (Mineral Spirits)(8052-41-3): Acute Oral Toxicity LD50 (Rat): >5,000 mg/kg. Acute Dermal Toxicity LD50 (Rabbit): >3,000 mg/kg
TOXIC EFFECTS ON HUMANS	Hazardous in case of ingestion or inhalation. Slightly hazardous in case of skin contact. Skin contact can cause redness, irritation and drying. Severity depends on the amount and duration of exposure. Eyes: Vapors may be irritating to the eyes. Liquid contact will cause stinging redness, swelling and tearing. Inhalation: Excessive inhalation of high concentrations may be harmful. Mist or vapor can irritate the throat and lungs. Breathing excessive amount of this product may cause central nervous system depression, intoxication, may cause drowsiness, headaches, dizziness. Ingestion: If swallowed this material may irritate the mucous membranes of the mouth throat and esophagus. May cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of this material into the lungs may result in damage or death.
CHRONIC EFFECTS ON HUMANS	Reports have associated repeated and prolonged overexposure to solvents with neurological and other physiological damage. May cause anemia, bone marrow, liver damage. Repeated or prolonged skin contact may cause redness, irritation, and scaling of the skin.
CARCINOGENICITY	No evidence
TERATOGENICITY	No evidence
MUTAGENICITY	No evidence
REPRODUCTIVE EFFECTS	Not expected to have Reproductive effects.

SECTION 12 –ECOLOGICAL INFORMATION	
ECOTOXICITY DATA	Product expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment. MOBILITY: Mostly volatile material and will partition rapidly to air. Not expected to partition to sediment and wastewater solids. For Stoddard solvent (Mineral spirits) (8052-41-3): Acute Toxicity to fish, LC50, Bluegill (<i>Lepomis macrochirus</i>): 2.1 – 4.2 mg / L /96h. Acute Toxicity to aquatic Invertebrates, EC50, <i>Daphnia magna</i> (Water flea): 0.42 – 2.3 mg /L /48 h. Acute Toxicity to Algae, EC50, Green Algae (<i>Selenastrum capricornutum</i>): 0.58 – 1.2 mg /L /72h.
BIODEGRADABILITY	Not readily biodegradable
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	1268
UN PROPER SHIPPING NAME	PETROLEUM DISTILLATES, N.O.S. (Stoddard Solvent, flash point 43° C)
TRANSPORT HAZARD CLASS	CLASS 3: Combustible liquid
PACKAGING GROUP	Pk: III
ENVIRONMENTAL HAZARDS	Marine pollutant
TRANSPORT IN BULK, if applicable	NOT AVAILABLE
SPECIAL PRECAUTIONS/PROVISIONS	Guide to Canadian transportation. Emergency Response Guidebook (ERG: # 128) TDG Additional information: Not regulated for rail or road shipment if packaged in non-bulk containers (450 Lit or less each). Limited Quantity exemption may be used if product is in containers of 5 lit or less, per section 1.17 of TDG 49CFR/DOT. Limited Quantity exemption may be used if product is in containers of 5 lit or less, per section 173.150 of 49 CFR

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