



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

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: G.K. Glass Cleaner 9:1 Concentration

HEALTH HAZARD RATING:	SLIGHT HAZARD – irritation or minor reversible injury possible
FLAMMABILITY HAZARD RATING:	SLIGHT HAZARD – materials that must be preheated before ignition will occur. Flammable liquids in this category will have flash points (the lowest temperature at which ignition will occur) at or above 200 °F. (NFPA Class II and Class IIA)
REACTIVITY HAZARD RATING:	MINIMAL HAZARD – materials which are normally stable, even under fire conditions, and which will not react with water.
PERSONAL PROTECTION:	Safety glasses + Gloves
HAZARD ALERT SIGN:	HEALTH HAZARD – Slightly hazardous FIRE HAZARD – Above 200 °F REACTIVITY – Stable SPECIFIC HAZARD –

SECTION I – MATERIAL IDENTIFICATION AND USE / IDENTIFICATION DE LA MATIÈRE ET USAGE

MATERIAL NAME / IDENTIFIÉRIER – NOM / IDENTIFICATION DE LA MATIÈRE

G.K. Glass Cleaner 9:1 Concentrate

MANUFACTURER'S NAME AND ADDRESS/ NOM DU FABRICANT – ADRESSE EMERGENCY PHONE NO. / N° DE TÉLÉPHONE D'URGENCE	G.K. Chemical Specialties Co. Inc. 90 Barbados Blvd. Scarborough, Ontario M1J 1K9 (416) 261-7182 / 905 427-7605
SUPPLIER'S NAME AND ADDRESS/ NOM DU FOURNISSEUR - ADRESSE EMERGENCY PHONE NO. / N° DE TELEPHONE DURGENCE	
CHEMICAL NAME / DÉNOMINATION CHIMIQUE	Not Applicable
CHEMICAL FAMILY / FAMILLE CHIMIQUE	Not Applicable
CHEMICAL FORMULA / FORMULE CHIMIQUE	Not Applicable
TRADE NAME AND SYNONYMS / APPELLATION COMMERCIALE ET SYNONYMES	Not Applicable
MOLECULAR WEIGHT / POIDS MOLÉCULAIRE	Not Applicable
MATERIAL USE / UTILISATION DE LA MATIÈRE	Cleaning Glass

G.K. Chemical Specialties Co. Inc. has compiled the information and recommendations contained in this Material Safety Data Sheet from sources believed to be reliable and to represent the most reasonable current opinion on the subject when the MSDS 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 MSDS 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 MSDS, 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.

SECTION II – HAZARDOUS INGREDIENTS OF MATERIAL / INGRÉDIENTS DANGEREUX DE LA MATIÈRE

HAZARDOUS INGREDIENTS / INGRÉDIENTS DANGEREUX	APPROXIMATE CONCENTRATION % CONCENTRATION APROXIMATIVE %	C.A.S., N.A. OR U.N. NUMBERS / NUMERO CAS NA OU CNU	LD50 {SPECIFY SPECIES & ROUTE} DL50 {PRÉCISER L'ESPECE ET LA VOIE D'ADMINISTRATION}	LC 50 {SPECIFY SPECIES & ROUTE} CL50 {PRÉCISER L'ESPECE ET LA VOIE D'ADMINISTRATION}
Ethylene Glycol Monobutyl Ether	5-10	111-76-2	500 mg – 5000 mg./kgm Rat Oral TLV Value: 25 ppm	
Methyl Alcohol	25-50	67-56-1	5000 mg – 15000 mg./kgm Rat Oral TLV Value: 200 ppm	
Tetrasodium salt of ethylene Diamine tetraacetic acid 60%	1-5	64-02-8	2000 mg/kgm Oral Rat	
Ammonium Hydroxide 26 Be	1-5	7664-41-7	Inhalation LC50 Rat: 2000 ppm	
Other Non-Hazardous Ingredients & Water	balance			

SECTION III – PHYSICAL DATA FOR MATERIAL / CARACTÉRISTIQUES PHYSIQUES DE LA MATIÈRE

PHYSICAL STATE / ÉTAT PHYSIQUE	Liquid
ODOUR AND APPEARANCE / ODEUR ET APPARENCE	Alcohol odour, Clear blue colour
ODOUR THRESHOLD (P.P.M.) / SEUIL DE L'ODEUR (PPM)	500 PPM
SPECIFIC GRAVITY / DENSITE RELATIVE	0.92 ± 0.02 gm/cm ³
VAPOUR PRESSURE [MM] / TENSION DE VAPEUR [MM]	< 25 at 20 °C
VAPOUR DENSITY [AIRE = 1] / DENSITE DE VAPEUR [AIR =1]	> 1
EVAPORATION RATE / TAUX D'ÉVAPORATION	Faster than Water
BOILING POINT [°C] / POINT D'ÉBULLITION [°C]	65 °C Methyl Alcohol
FREEZING POINT [°C] / POINT DE CONGELATION [°C]	Approx. -30 °C
SOLUBILITY IN WATER [20°C] / SOLUBILITÉ DANS L'EAU [20°C]	Infinite
% VOLATILE [BY VOLUME] / % VOLATILITÉ [PAR VOLUME]	98.5 ± 0.5
PH	Conc. 8.5 ± 0.5
COEFFICIENT OF WATER / OIL DISTRIBUTION / COEFFICIENT DE RÉPARTITION EAU / HUILE	Not Applicable

**SECTION IV – FIRE AND EXPLOSION HAZARD OF MATERIAL/RISQUES D'INCENDIE ET D'EXPLOSION DU
MATÉRIEL**

FLAMMABILITY / INFLAMMABILITÉ <u>X</u> YES / OUI _ NO/NON IF YES, UNDER WHICH CONDITIONS? / SI OUI, DANS QUELLES CONDIONS?	Product contains isopropyl and methyl alcohol, as well as ethylene glycol monobutyl ether. Heated solvent vapours can travel to an ignition source and flash back.
MEANS OF EXTINCTION / MOYENS D'EXTINCTION	Dry chemical, Carbon dioxide, Water fog or Alcohol foam
SPECIAL PROCEDURES / MARCHE A SUIVRE SPÉCIALE	Evacuate hazard area. Wear adequate respiratory and clothing protection. Cool fire exposed containers with water.

FLASHPOINT [°C] AND METHOD / POINT D'ÉCLAIR [°C] ET MÉTHODE DE DÉTERMINATION	> 45 °C	113 °F
UPPER EXPLOSION LIMIT [% BY VOLUME]/ SEUIL MAXIMAL D'INFLAMMABILITÉ [% PAR VOLUME]	6.7 Methanol	
LOWER EXPLOSION LIMIT [% BY VOLUME]/ SEUIL MINIMAL D'INFLAMMABILITÉ [% PAR VOLUME]	36 Methanol	
AUTOIGNITION TEMPERATURE [°C] / TEMPÉRATURE D'AUTO-INFLAMMATION [°C]	> 400 °C	
HAZARDOUS COMBUSTION PRODUCTS / PRODUITS DE COMBUSTION DANGEREUX	Carbon monoxide & Carbon dioxide	

EXPLOSION DATA / DONNÉES SUR L'EXPLOSIBILITÉ

SENSITIVITY TO MECHANICAL IMPACT / SENSIBILITÉ AUX CHOCS	Not Applicable
SENSITIVITY TO STATIC DISCHARGE / SENSIBILITÉ AUX DÉCHARGES ÉLECTROSTATIQUES	Not Applicable

SECTION V – REACTIVITY DATA / DONNÉES SUR LA RÉACTIVITÉ

CHEMICAL STABILITY / STABILITÉ CHIMIQUE <input checked="" type="checkbox"/> YES / OUI <input type="checkbox"/> NO/NON IF NO, UNDER WHICH CONDITIONS? / SI NON-, DANS QUELLES CONDISIONS?	
INCOMPATIBILITY TO OTHER SUBSTANCES / INCOMPATIBILITÉ AVEC D'AUTRES SUBSTANCES <input checked="" type="checkbox"/> YES / OUI <input type="checkbox"/> NO/NON IF SO, WHICH ONES? / SI OUI, AVEC LESQUELLES?	Sulfuric acid and Nitric acid
REACTIVITY AND UNDER WHAT CONDITIONS / RÉACTIVITÉ – DANS QUELLES CONDITIONS?	Not applicable
HAZARDOUS DECOMPOSITION PRODUCTS / PRODUITS DE DÉCOMPOSITION DANGEREUX	Product contains methyl alcohol and isopropyl alcohol. Thermal decomposition of alcohols produces carbon monoxide and carbon dioxide.

SECTION VI – TOXICOLOGICAL PROPERTIES OF MATERIAL / PROPRIÉTÉS TOXICOLOGIQUES DE LA MATIÈRE

ROUTE OF ENTRY / VOIE D'ADMINISTRATION

SKIN CONTACT / CONTACT AVEC LA PEAU SKIN ABSORPTION / ABSORPTION PAR LA PEAU
 EYE CONTACT / CONTACT OCULAIRE INHALATION ACUTE / INHALATION AIGUE
 INHALATION CHRONIC / INHALATION CHRONIQUE INGESTION

EFFECTS OF ACUTE EXPOSURE TO MATERIAL / EFFETS DE L'EXPOSITION AIGUE A LA MATIÈRE	SKIN: Repeated or prolonged contact may cause drying, brittleness. EYE: May cause irritation, tearing and burning INGESTION: Poisonous if swallowed. May cause blindness, narcosis, headache, nausea and vomiting leading to severe illness and perhaps death. INHALATION: Vapours cause a slight smarting of the eyes or respiratory system if present in high concentrations. The effect is temporary.
EFFECTS OF CHRONIC EXPOSURE TO MATERIAL / EFFETS DE L'EXPOSITION CHRONIQUE A LA MATIÈRE	None known

MATERIAL NAME / IDENTIFIÉ - NOM / IDENTIFICATION DE LA MATIÉRE↓**G.K. Glass Cleaner 9:1 Concentration**

LD 50 OF MATERIAL [SPECIFY SPECIES & ROUTE] / LD50 DE LA MATIÉRE [PRÉCISER L'ESPECE ET LA VOIE D'ADMINISTRATION]	> 7,000 mg/kgm Oral Rat
LC50 OF MATERIAL [SPECIFY SPECIES & ROUTE] LC50 DE LA MATIÉRE / [PRÉCISER L'ESPECE ET LA VOIE D'ADMINISTRATION]	Not Established
EXPOSURE [LIMITS] / LIMITS D'EXPOSITION	350 ppm
IRRITANCY OF MATERIAL/PROPRIÉTÉ IRRITANTE DE LA MATIÉRE	Eyes, skin
SENSITIZATION OF MATERIAL / SENSIBILISATION A LA MATIÉRE	Eyes, skin
SYNERGISTIC MATERIALS / MATÉRES SYNERGIQUES	None Known
CARCINOGENICITY, REPRODUCTIVE EFFECTS, TERATOGENICITY, MUTAGENICITY / CANCÉROGÉNÉCITÉ, EFFETS NOCIFS SUR LA REPRODUCTION, TÉRATOGÉNÉCITÉ, MUTAGÉNÉCITÉ	None of the ingredients contained in this product are regulated as carcinogens by OSHA.

SECTION VII – PREVENTIVES MEASURES / MESURES PRÉVENTIVES**PERSONAL PROTECTIVE EQUIPMENT / MATÉRIEL PERSONNEL DE PROTECTION**

GLOVES (SPECIFY) GANTS [PRÉCISER]	Impervious rubber gloves, when handling conc. product for prolonged time.
EYE [SPECIFY] / YEUX [PRÉCISER]	Glasses
RESPIRATORY (SPECIFY) / APPAREIL RESPIRATOIRE (PRÉCISÉR)	None Required
OTHER (SPECIFY) / AUTRES (PRCISER)	None Required
ENGINEERING CONTROLS [E.G. VENTILATION, ENCLOSED PROCESS, SPECIFY] / MÉCANISMES TECHNIQUES [EX. VENTILATION, OPÉRATION EN MILIEU FERMÉ, PRÉCISER]	General Ventilation
LEAK AND SPILL PROCEDURE / MESURES EN CAS DE FUITE OU DE DÉVERSEMENT	Flush with plenty of water
WASTE DISPOSAL / ÉLIMINATION DES RÉSIDUS	Small quantities – sanitary sewer. Methanol is dangerous to aquatic life in high concentrations. Therefore, for large waste consider incineration or dispose according to local or federal regulations.
HANDLING PROCEDURES AND EQUIPMENTS / MÉTHODES ET ÉQUIPEMENT POUR LA MANUTENTION	Avoid contact with eyes
STORAGE REQUIREMENTS / EXIGENCES D'ENTREPOSAGE	Keep in closed containers away from children.
SPECIAL SHIPPING INFORMATION / RENSEIGNEMENTS SPÉCIAUX POUR L'EXPÉDITION	Not applicable

SECTION VIII – FIRST AID MEASURES / PREMIERS SOINS

SKIN OR EYES: Flush with water

INGESTION: Induce vomiting, then give two tea spoons of baking soda in glass of water; call a physician. If swallowed and victim is unconscious or having convulsions, do not induce vomiting or give anything by mouth. Keep warm, and get medical help.

ADDITIONAL INFORMATION / RENSEIGNEMENTS SUPPLÉMENTAIRES	
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SECTION IX – PREPARATION DATE OF M.S.D.S. / FICHE SIGNALÉTIQUE

PREPARED BY: Gus Kaklamanos - CHEMIST

TELEPHONE NO.: (416) 2617182

DATE: January 5, 2015

ADDITIONAL NOTES OR REFERENCES / NOTES ADDITIONNELLES OU RÉFÉRENCES:

WHMIS Classification: Class B, Div 3
Class D, 2B