



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

Material SAFETY DATA SHEET

PRODUCT NAME: G-450 + Extra Heavy Duty Detergent

HEALTH HAZARD RATING:	SERIOUS HAZARD - major injury likely unless prompt action is taken and medical treatment is given
FLAMMABILITY HAZARD RATING:	MINIMAL HAZARD - materials which are normally stable and will not burn unless heated
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 + synthetic apron
HAZARD ALERT SIGN:	HEALTH HAZARD - Extreme danger FIRE HAZARD - Will not burn REACTIVITY - Stable SPECIFIC HAZARD - Alkali

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

MATERIAL NAME / IDENTIFIER - NOM / IDENTIFICATION DE LA MATIÈRE

G-450 + Extra Heavy Duty Detergent

MANUFACTURER'S NAME AND ADDRESS/ NOM DU FABRICANT - ADRESSE EMERGENCY PHONE NO. / N° DE TÉLÉPHONE D'URGENCE	G.K. Chemical Specialties Co. Ltd. 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	Detergent
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

G.K. Chemical Specialties Co. Ltd. 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. Ltd. 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. Ltd. 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}
Sodium Metasilicate	3-7	6834-92-0	LD 50 Oral, Rat 1280 mg/kgm	
Caustic Potash	1-5	1310-58-3	LD 50 Oral, Rat 364 mg/kgm	
Monoethanolamine	3-7	141-53-5	LD 50 Oral, Rat TLV 3 PPM 500-5000	
Ethylene Glycol Monobutyl	3-7	111-76-2	mg/kgm	
Ether	1-5	68603-42-9	LD 50 Oral, Rat TLV 25 PPM 5000 mg/kgm	
Coconut Diethanolamide	1-5	68411-30-3	LD 50 Oral, Rat 3000 mg/kgm	
Sodium Salt of Linear Alkyl Benzene Sulphonate	3-7	Non Hazardous	LD 50 Oral, Rat 500-5000 mg/kgm	
Ester Type Surfactant	Balance	Non Hazardous		
Water and other non hazardous ingredients				< = Less Than

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

PHYSICAL STATE / ÉTAT PHYSIQUE	Liquid
ODOUR AND APPEARANCE / ODEUR ET APPARENCE	Clear Liquid pleasant odour
ODOUR THRESHOLD (P.P.M.) / SEUIL DE L'ODEUR (PPM)	Not Applicable
SPECIFIC GRAVITY / DENSITÉ RELATIVE	1.02 ± 0.02 gm/cm ³
VAPOUR PRESSURE [MM] / TENSION DE VAPEUR [MM]	< 25 at 20 °C
VAPOUR DENSITY [AIRE = 1] / DENSITÉ DE VAPEUR [AIR =1]	> 1
EVAPORATION RATE / TAUX D'ÉVAPORATION	~ Water
BOILING POINT [°C] / POINT D'ÉBULLITION [°C]	100 °C
FREEZING POINT [°C] / POINT DE CONGÉLATION [°C]	0 °C
SOLUBILITY IN WATER [20°C] / SOLUBILITÉ DANS L'EAU [20°C]	Infinite
% VOLATILE [BY VOLUME] / % VOLATILITÉ [PAR VOLUME]	85 ± 1%
PH	12.50 ± 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 <input type="checkbox"/> YES / OUI <input checked="" type="checkbox"/> NO/NON IF YES, UNDER WHICH CONDITIONS? / SI OUI, DANS QUELLES CONDITIONS?	
MEANS OF EXTINCTION / MOYENS D'EXTINCTION	Not Applicable
SPECIAL PROCEDURES / MARCHE A SUIVRE SPÉCIALE	Not Applicable
FLASHPOINT [°C] AND METHOD / POINT D'ÉCLAIR [°C] ET MÉTHODE DE DÉTERMINATION	Not Applicable
UPPER EXPLOSION LIMIT [% BY VOLUME]/ SEUIL MAXIMAL D'INFLAMMABILITÉ [% PAR VOLUME]	Not Applicable

LOWER EXPLOSION LIMIT [% BY VOLUME]/ SEUIL MINIMAL D'INFLAMMABILITÉ [% PAR VOLUME]	Not Applicable
AUTOIGNITION TEMPERATURE [°C] / TEMPÉRATURE D'AUTO-INFLAMMATION [°C]	Not Applicable
HAZARDOUS COMBUSTION PRODUCTS / PRODUITS DE COMBUSTION DANGEREUX	Small amounts of nitrogen oxides, carbon monoxides & / or 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 <u>X</u> YES / OUI NO/NON IF NO, UNDER WHICH CONDITIONS? / SI NON, DANS QUELLES CONDISIONS?	
INCOMPATIBILITY TO OTHER SUBSTANCES / INCOMPATIBILITÉ AVEC D'AUTRES SUBSTANCES <u>X</u> YES / OUI NO/NON IF SO, WHICH ONES? / SI OUI, AVEC LESQUELLES?	Acids
REACTIVITY AND UNDER WHAT CONDITIONS / RÉACTIVITÉ – DANS QUELLES CONDITIONS?	Acids – not dangerously reactive
HAZARDOUS DECOMPOSITION PRODUCTS / PRODUITS DE DÉCOMPOSITION DANGEREUX	

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

ROUTE OF ENTRY / VOIE D'ADMINISTRATION	
<u>X</u> SKIN CONTACT / CONTACT AVEC LA PEAU	<u>X</u> SKIN ABSORPTION / ABSORPTION PAR LA PEAU (no significant hazard)
<u>X</u> EYE CONTACT / CONTACT OCULAIRE	<u>X</u> INHALATION ACUTE / INHALATION AIGUE
<u> </u> INHALATION CHRONIC / INHALATION CHRONIQUE	<u>X</u> INGESTION
EFFECTS OF ACUTE EXPOSURE TO MATERIAL / EFFETS DE L'EXPOSITION AIGUE A LA MATIERE	EYE: Will Cause severe irritation, may cause chemical burns. SKIN CONTACT: Brief contact may cause irritation, seen as local redness. Prolonged contact may cause chemical burns. INHALATION: Vapors or mist very irritating to the respiratory tract. INGESTION: Will cause chemical burns of the mouth, throat, esophagus and stomach. Signs and symptoms will include pain or discomfort in the mouth, chest and abdomen, nausea, vomiting, diarrhea, dizziness, faintness, weakness, collapse, coma.
EFFECTS OF CHRONIC EXPOSURE TO MATERIAL / EFFETS DE L'EXPOSITION CHRONIQUE A LA MATIERE	Although no long-term human studies have been reported, there are no reported chronic effects that warrant control beyond that required for effects of acute exposure.

MATERIAL NAME / IDENTIFIER - NOM / IDENTIFICATION DE LA MATIÈRE↓**G-450 Extra Heavy Duty Detergent**

LD 50 OF MATERIAL [SPECIFY SPECIES & ROUTE] / LD50 DE LA MATIÈRE [PRÉCISER L'ESPECE ET LA VOIE D'ADMINISTRATION]	Approx. 5000 mg/kgm Oral, Rat
LC50 OF MATERIAL [SPECIFY SPECIES & ROUTE] LC50 DE LA MATIÈRE / [PRÉCISER L'ESPECE ET LA VOIE D'ADMINISTRATION]	Not Established
EXPOSURE [LIMITS] / LIMITS D'EXPOSITION	> 60 mg/m ³
IRRITANCY OF MATERIAL/PROPRIÉTÉ IRRITANTE DE LA MATIÈRE	Eyes, Skin, Respiratory Tract
SENSITIZATION OF MATERIAL / SENSIBILISATION A LA MATIÈRE	Eyes, Skin, Respiratory Tract
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
EYE [SPECIFY] / YEUX [PRÉCISER]	Glasses, splash goggles
RESPIRATORY (SPECIFY) / APPAREIL RESPIRATOIRE (PRÉCISÉR)	For most jobs respiratory protection is not required. However a spray application will create mist. For such an application and in absence of proper environmental control, use NIOSH approved respirator.
OTHER (SPECIFY) / AUTRES (PRCISER)	Full protective suit is recommended whenever there is a possibility that this product could come in contact with clothing or skin.
ENGINEERING CONTYROLS [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	Small quantities may be flushed with copious amounts of water; in case of large amounts contain liquid, use phosphoric or hydrochloric acids diluted to cautiously neutralize.
WASTE DISPOSAL / ÉLIMINATION DES RÉSIDUS	Small amounts sanitary sewer. Large amounts must neutralize product before allowing into sanitary system.
HANDLING PROCEDURES AND EQUIPMENTS / MÉTHODES ET ÉQUIPEMENT POUR LA MANUTENTION	Avoid any contact with skin and eyes.
STORAGE REQUIREMENTS / EXIGENCES D'ENTREPOSAGE	Store in closed containers away from children. Store in a room above 0°C.
SPECIAL SHIPPING INFORMATION / RENSEIGNEMENTS SPÉCIAUX POUR L'EXPÉDITION	Sodium hydroxide solution or caustic soda solution class 8 (9.2) Pin #1814 Pkg II

SECTION VIII – FIRST AID MEASURES / PREMIERS SOINS

EYE CONTACT Immediately flush with lots of running water for 15 minutes, lifting the upper and lower eyelids occasionally. Get immediate medical attention.

SKIN CONTACT: Immediately wash skin with lots of water. If available neutralize with diluted vinegar or lemon juice. Remove contaminated clothing and shoes; wash before reuse. Get medical attention.

IF SWALLOWED: Do not induce vomiting. If conscious, give lots of water or milk, then diluted vinegar, lemon juice. Get immediate medical attention. Do not give anything by mouth to an unconscious or convulsing person.

INHALATION: Remove to fresh air. Give artificial respiration if not breathing. If necessary, oxygen may be given. Call physician and / or transport to a medical facility.

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 01, 2010

ADDITIONAL NOTES OR REFERENCES / NOTES ADDITIONNELLES OU RÉFÉRENCES:

WHMIS CLASSIFICATION: CLASS D, DIV. 2, SUB. A AND SUB. B
CLASS E