

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-450 + Extra	Heavy Duty	Detergent
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HEALTH HAZARD RATING:	SERIOUS HAZARD - major injury likely unless prompt action is taken and medical
	treatment is given
FLAMMABILITY HAZARD	MINIMAL HAZARD - materials which are normally stable and will not burn unless
RATING:	heated
REACTIVITY HAZARD	MINIMAL HAZARD – materials, which are normally stable, even under fire
RATING:	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

$SECTION\ I-{\rm material\ identification\ and\ use/identification\ de\ la\ matiére\ et\ usage}$

MATERIAL NAME / IDENTIFIER - NOM / IDENTIFICATION DE LA MATIÉRE G-450 + Extra Heavy Duty Detergent MANUFACTURER'S NAME AND ADDRESS/ G.K. Chemical Specialties Co. Inc. NOM DU FABRICANT - ADRESSE 90 Barbados Blvd. EMERGENCY PHONE NO. / Nº DE TÉLÉPHONE D'URGENCE 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 Not Applicable ET SYNONYMES MOLECULAR WEIGHT / POIDS MOLÉCULAIRE Not Applicable MATERIAL USE / UTILISATION DE LA MATIÉRE Cleaning

- 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.

<u>INGREDIENTS.</u> 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.

- <u>T.L.V.</u> (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.
- <u>"C.A.S REG. No."</u> means the identification number assigned to a chemical substance by the Chemical Abstracts Service Division of the American Chemical Society.
- <u>"LC 50"</u> 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.
- <u>"LD 50"</u> 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.

<u>FLASH POINT.</u> 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 MATIÉRE				
HAZARDOUS INGREDIENTS /	APPROXIMATE	C.A.S., N.A. OR	LD50	LC 50
INGREDIENTS DANGEREUX	CONCENTRATION%	U.N. NUMBERS /	{SPECIFY SPECIES &	{SPECIFY SPECIES &
	CONCENTRATION	NUMERO CAS	ROUTE) DL50	ROUTE) CL50
	APROXIMATIVE %	NA OU CNU	{PRÉCISER L'ESPECE	{PRÉCISER L'ESPECE
			ET LA VOIE D'ADMINISTRATION}	ET LA VOIE D'ADMINISTRATION
			D MDMINISTRATION)	D MDMINISTRATION
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 m	ıg/kgm
Monoethanolamine	3-7	141-53-5	LD 50 Oral, Rat TLV 3	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 2	25 PPM 5000 mg/kgm
Coconut Diethanolamide	1-5	68411-30-3	LD 50 Oral, Rat 3000 i	mg/kgm
Sodium Salt of Linear Alkyl			LD 50 Oral, Rat 500-5	000 mg/kgm
Benzene Sulphonate	3-7	Non Hazardous		
Ester Type Surfactant	Balance	Non Hazardous		
Water and other non hazardous		İ	< = Less T	han
ingredients				

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

SECTION III - PHYSICAL DATA FOR MATERIAL/CAR	ACTERISTIQUES PHYSIQUES DE LA MATIERE
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 / DENSITE RELATIVE	1.02 ± 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	~ Water
BOILING POINT [°C] / POINT D'ÉBULLITION [°C]	100 °C
FREEZING POINT [°C] / POINT DE CONGELATION [°C]	0 °C
SOLUBILITY IN WATER [20°C] / SOLUBILITÉ DANS L'EAU [20°C]	Infinite
% VOLATILE [BY VOLUME] / % VOLATILITÉ [PAR VOLUME]	85 <u>+</u> 1%
PH	12.50 ± 0.5
COEFFCIENT 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 YES / OUI _X_ NO/NON IF YES, UNDER WHICH CONDITIONS? / SI OUI, DANS QUELLES CONDISIONS?	
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 [% E D'INFLAMMABILITÉ [% PAR VO		AL	Not Applicable
AUTOIGNITION TEMPERATURE INFLAMMATION [°C]	E [°C] / TEMPÉRATURE D'AU	J TO-	Not Applicable
HAZARDOUS COMBUSTION PRO COMBUSTION DANGEREUX	ODUCTS / PRODUITS DE		Small amounts of nitrogen oxides, carbon monoxides & / or carbon dioxide
EXPLOSION DATA / DO		OSIB	ILITÉ
SENSITIVITY TO MECHANICAL AUX CHOCS	IMPACT / SENSIBILITÉ	Not	Applicable
SENSITIVITY TO STATIC DISCH DÉCHARGES ÉLECTROSTATIQU			Applicable
SECTION V - REACTIV		IID I	
CHEMICAL STABILITY / STABIL			A REACTIVITE
CHEMICAL STABILITY STABIL	TIE CHIMIQUE _A_ TES/ C	<i>,</i> 01	
NO/NON IF NO, UNDER WHICH CONDITION CONDISIONS?	ONS? / SI NON, DANS QUELI	LES	
INCOMPATIBILITY TO OTHER			Acids
INCOMPATIBILITÉ AVEC D'AUT OUI	TRES SUBSTANCES <u>X</u> YES	1	
NO/NON	-		
IF SO, WHICH ONES? / SI OUI, A	VEC LESQUELLES?		
REACTIVITY AND UNDER WHAT	Γ CONDITIONS / RÉACTIVIT	ГÉ –	Acids – not dangerously reactive
DANS QUELLES CONDITIONS?			and samples and same
HAZARDOUS DECOMPOSITION	PRODUCTS / PRODUITS DE		
DÉCOMPOSITION DANGEREUX			
SECTION VI -TOXICOLO	OGICAL PROPERTIES OF	F MAT	FERIAL / PROPRIÉTÉS TOXICOLOGIQUES DE LA
MATIÉRE	0 010.12 1 1101 2111120 01	,	
ROUTE OF ENTRY / VOIE D'ADM	MINISTRATION		
X SKIN CONTACT / CONTACT	AVEC LA PEAU		X SKIN ABSORPTION / ABSORPTION PAR LA PEAU (no significant hazard)
X EYE CONTACT / CONTACT	OCULAIRE		X INHALATION ACUTE / INHALATION AIGUE
INHALATION CHRONIC / IN	HALATION CHRONIQUE	-	X INGESTION
EFFECTS OF ACUTE	EYE: Will Cause sever	e irrita	ation, may cause chemical burns.
EXPOSURE TO MATERIAL /	POSURE TO MATERIAL / SKIN CONTACT: Brief contact may cause irritation, seen as local redness. Prolonged		· · · · · · · · · · · · · · · · · · ·
EFFETS DE L'EXPOSITION AIGUE A LA MATIERE	contact may cause chemi		
	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.		
	vomiting, diarrhea, dizzi	ness,	naintness, weakness, conapse, coma.
EFFECTS OF CHRONIC	Although no long town 1	1110000	studies have been reported there are no remorted shape:
EXPOSURE TO MATERIAL /	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.		
EFFETS DE L'EXPOSITION CHRONIQUE A LA MATIERE		•	, 1

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

G-450 Extra neavy Duty Detergent	
LD 50 OF MATERIAL [SPECIFY SPECIES & ROUTE] / LD50 DE LA MATIÉRE [PRECISER L'ESPECE ET LA VOIE D'ADMINISTRATION]	Approx. 5000 mg/kgm Oral, Rat
LC50 OF MATERIAL [SPECIFY SPECIES & ROUTE] LC50 DE LA	Ni d Padalitata d
MATIÉRE / [PRECISER L'ESPECE ET LA VOIE D'ADMINISTRATION]	Not Established
EXPOSURE [LIMITS] / LIMITS D'EXPOSITION	
EXPOSURE [LIMITS] / LIMITS D'EXPOSITION	> 60 mg/m ³
IRRITANCY OF MATERIAL/PROPRIÉTÉ IRRITANTE DE LA MATIÉRE	Eyes, Skin, Respiratory Tract
SENSITIZATION OF MATERIAL / SENSIBILISATION A LA MATIÉRE	Eyes, Skin, Respiratory Tract
SYNERGISTIC MATERIALS / MATÉRES SYNERGIQUES	None Known
CARCINOGENICITY, REPRODUCTIVE EFFECTS, TERATOGENICITY, MUTAGENCITY / CANCÉROGÉNICITÉ, EFFETS NOCIFS SUR LA	None of the ingredients contained in this product are
REPRODUCTION, TÉRATOGÉNÉCITÉ, MUTAGÉNICITÉ	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

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 D, DIV. 2, SUB. A AND SUB. B

CLASS E