

G.K. Chemical Specialties Co. Inc. 90 Barbados Blvd. Scarborough, Ontario M1J 1K9

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MATERIAL SAFETY DATA SHEET

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:	SLIGHT HAZARD – materials which are normally stable, but can become unstable at high temperatures and pressures. These materials may react with water, but will not release energy violently
PERSONAL PROTECTION:	Safety glasses + Gloves + Dust Respirator
HAZARD ALERT SIGN:	HEALTH HAZARD – Extreme danger FIRE HAZARD – Will not burn REACTIVITY – Unstable if heated SPECIFIC HAZARD – Corrosive

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

MATERIAL NAME / IDENTIFIER - NOM / IDENTIFICATION DE LA MATIÉRE **Dish Glo Powdered Dishwashing 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 / Dish Washing

- 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.
- "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.
- <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 / INGREDIENTS 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 metasilcate	15 – 40	6834-92-0	LD50, Oral, Rat = 1280 /m ³ .	mg/kgm TLV 2 mg
Sodium carbonate	15-40	497-19-8		
Sodium hydroxide	10-20	1310-73-2	LD50, Oral, Rat 2800	
			LD50, Oral Rat 10% S TLV 2 mg/m ³	ol'n = 500 mg/kgm
Silica amorphous, fumed	<1	7631-86-9	TLV 2 mg/m TLV 10 mg/m ³	
Sodium dodecylbenzene	1 – 5	1322-98-1	1Lv 10 mg/m	
sulfonate		1022 30 1	LD50, Oral Rat 500-50	000 mg/kgm
Sodium dichloro-isocyanurate	1 – 5	51580-86-0		
dihydrate			LD50, ORAL Rat 735	6 6
Sodium tripolyphosphate	10 – 30	7758-29-4	LC50 > 200 mg < Rat	, I nour
Socium urporyphosphate	10 50	. 1130-27- 1 !	LD50 Oral, Rat, 6500 n	ng/kgm
Other Non Hazardous ingredients	3 - 7	Non Hazardous	, , ,	

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

PHYSICAL STATE / ÉTAT PHYSIQUE	Solid
ODOUR AND APPEARANCE / ODEUR ET APPARENCE	White powder – no odour
ODOUR THRESHOLD (P.P.M.) / SEUIL DE L'ODEUR (PPM)	Not Applicable
SPECIFIC GRAVITY / DENSITE RELATIVE	Not Applicable
VAPOUR PRESSURE [MM] / TENSION DE VAPEUR [MM]	Not Applicable
VAPOUR DENSITY [AIRE = 1] / DENSITE DE VAPEUR [AIR =1]	Not Applicable
EVAPORATION RATE / TAUX D'ÉVAPORATION	Not Applicable
BOILING POINT [°C] / POINT D'ÉBULLITION [°C]	Not Applicable
FREEZING POINT [°C] / POINT DE CONGELATION [°C]	Not Applicable
SOLUBILITY IN WATER [20°C] / SOLUBILITÉ DANS L'EAU [20°C]	15 – 20% in water
% VOLATILE [BY VOLUME] / % VOLATILITÉ [PAR VOLUME]	Not Applicable
РН	1% solution in water 13.2 \pm 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	None Required
SPECIAL PROCEDURES / MARCHE A SUIVRE SPÉCIALE	None Required
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	None Known

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 _X_ YES / OUI NO/NON IF NO, UNDER WHICH CONDITIONS? / SI NON-, DANS QUELLES CONDISIONS?	
INCOMPATIBILITY TO OTHER SUBSTANCES / INCOMPATIBILITÉ AVEC D'AUTRES SUBSTANCES _ X _ YES / OUI NO/NON IF SO, WHICH ONES? / SI OUI, AVEC LESQUELLES?	Strong acids. Solution of this product upon prolonged contact with metals such as aluminum, tin, lead, lead zinc will produce flammable hydrogen gas.
REACTIVITY AND UNDER WHAT CONDITIONS / RÉACTIVITÉ – DANS QUELLES CONDITIONS?	See incompatibility section
HAZARDOUS DECOMPOSITION PRODUCTS / PRODUITS DE DÉCOMPOSITION DANGEREUX	Small amount of chlorine, carbon monoxide, hydrogen

SECTION VI –TOXICOLOGICAL PROPERTIES OF MATERIAL / PROPRIÉTÉS TOXICOLOGIQUES DE LA MATIÉRE ROUTE OF ENTRY / VOIE D'ADMINISTRATION X SKIN CONTACT / CONTACT AVEC LA PEAU SKIN ABSORPTION / ABSORPTION PAR LA PEAU X EYE CONTACT / CONTACT OCULAIRE X INHALATION ACUTE / INHALATION AIGUE INHALATION CHRONIC / INHALATION CHRONIQUE X INGESTION Inhalation of dusts may cause severe irritation to upper respiratory tract. EFFECTS OF ACUTE EYE: Will cause severe irritation, may cause chemical burns, corneal injury or damage. EXPOSURE TO MATERIAL / Dusts may irritate eyes. EFFETS DE L'EXPOSITION SKIN CONTACT: Brief contact may cause irritation, seen as local redness. Prolonged AIGUE A LA MATIERE contact will cause chemical burns. INGESTION: Will cause chemical buns 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, weakness, collapse, coma. EFFECTS OF CHRONIC Although no long term human studies have been reported, there are no reported chronic EXPOSURE TO MATERIAL / effects that warrant control beyond that required for effects of acute exposure. EFFETS DE L'EXPOSITION CHRONIQUE A LA MATIERE MATERIAL NAME / IDENTIFIER - NOM / IDENTIFICATION DE LA MATIÉRE↓ **Dish Glo Powdered Dishwashing Detergent** LD 50 OF MATERIAL [SPECIFY SPECIES & ROUTE] / LD50 DE LA 2400 mg/kgm Rat, Oral MATIÉRE [PRECISER L'ESPECE ET LA VOIE D'ADMINISTRATION] LC50 OF MATERIAL ISPECIFY SPECIES & ROUTE LC50 DE LA Not Established MATIÉRE / [PRECISER L'ESPECE ET LA VOIE D'ADMINISTRATION] EXPOSURE [LIMITS] / LIMITS D'EXPOSITION $> 3 \text{ mg/m}^3$ 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, None of the ingredients contained in this product are MUTAGENCITY / CANCÉROGÉNICITÉ, EFFETS NOCIFS SUR LA regulated as carcinogens by OSHA REPRODUCTION, TÉRATOGÉNÉCITÉ, MUTAGÉNICITÉ SECTION VII - PREVENTIVES MEASURES / MESURES PRÉVENTIVES PERSONAL PROTECTIVE EQUIPMENT / MATÉRIEL PERSONNEL DE PROTECTION GLOVES (SPECIFY) GANTS [PRÉCISER] Plastic or rubber gloves EYE [SPECIFY] / YEUX [PRÉCISER]

Glasses

RESPIRATORY (SPECIFY) / APPAREIL RESPIRATOIRE (PRÉCISÉR)	When airborne exposure guidelines and/or comfort levels may be exceeded, use an approved air-purifying respirator.
OTHER (SPECIFY) / AUTRES (PRCISER)	Use protective clothing as required.
ENGINEERING CONTROLS [E.G. VENTILATION, ENCLOSED PROCESS, SPECIFY] / MÉCANISMES TECHNIQUES [EX. VENTILATION, OPÉRATION EN MILIEU FERMÉ, PRÉCISER]	Control airborne concentrations below the exposure guidelines. Local exhaust ventilation may be necessary for some operations.
LEAK AND SPILL PROCEDURE / MESURES EN CAS DE FUITE OU DE DÉVERSEMENT	Acting cautiously, accidental spills of this product must first be shoveled up. Then carefully flush the spill area with water.
WASTE DISPOSAL / ÉLIMINATION DES RÉSIDUS	If material can not be salvaged, a method of disposal is in a landfill in accordance with all local and federal regulations.
HANDLING PROCEDURES AND EQUIPMENTS / MÉTHODES ET ÉQUIPEMENT POUR LA MANUTENTION	Avoid any contact with eyes and skin. Avoid inhalation of dusts.
STORAGE REQUIREMENTS / EXIGENCES D'ENTREPOSAGE	Store in a dry place, in closed containers and away from children.
SPECIAL SHIPPING INFORMATION / RENSEIGNEMENTS SPÉCIAUX POUR L'EXPÉDITION	None Required

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 dilute 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 dilute vinegar, lemon juice or orange 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. Oxygen may be given if necessary. Call a 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 E

Class D, 2A & 2B