

**SAFETY DATA SHEET**

**PRODUCT: CHLOROCLEAN**

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**SECTION 01: PRODUCT AND COMPANY INFORMATION**

MANUFACTURER/SUPPLIER ..... LES INVESTISSEMENTS B.S.C. INC.  
MANUFACTURER'S/SUPPLIERS ADDRESS..... 109 IBER RD., UNIT #3, OTTAWA, ON K2S 0X5 613-744-8896  
PRODUCT NAME ..... CHLOROCLEAN  
PRODUCT USE ..... LIQUID COMMERCIAL DISHWASHER DETERGENT  
EMERGENCY PHONE NUMBER ..... CANUTECH 613-996-6666

**SECTION 02: HAZARDS IDENTIFICATION**



ROUTE OF ENTRY:  
SKIN CONTACT..... CORROSIVE. CONTACT WITH CONCENTRATED SOLUTIONS MAY CAUSE SERIOUS BURNS TO HUMAN TISSUE. PROLONGED CONTACT MAY LEAD TO BURNS AND BLISTERS AND MAY AGGRAVATE DERMATITIS. MAY CAUSE WHITENING OR BLEACHING OF THE SKIN.

SKIN ABSORPTION ..... N.A.V  
EYE CONTACT..... WILL CAUSE SEVERE TO PERMANENT INJURY.  
INHALATION..... MIST MAY CAUSE INJURY TO ENTIRE RESPIRATORY TRACT. CORROSIVE TO THE RESPIRATORY PASSAGE. CAUSES IRRITATION OF THE MOUTH, NOSE AND THROAT. REPEATED AND/OR PROLONGED EXPOSURES MAY CAUSE PRODUCTIVE COUGH, RUNNING NOSE, BRONCHOPNEUMONIA, PULMONARY EDEMA (FLUID BUILD-UP IN LUNGS) AND REDUCTION OF PULMONARY FUNCTION.

INGESTION ..... DAMAGES THROAT AREA AND GASTRO- RESPIRATORY TRACT. CORROSIVE. CAUSES BURNS TO THE MOUTH, THROAT AND STOMACH. CAUSES VOMITING, NAUSEA, AND DIARRHEA. COMA, SHOCK AND DEATH MAY OCCUR.

EFFECTS/SYMPTOMS OF ACUTE EXPOSURE ..... ALL HUMAN TISSUE DAMAGED ON CONTACT.  
EFFECTS/SYMPTOMS OF CHRONIC EXPOSURE .... SEE ABOVE.  
MEDICAL CONDITIONS GENERALLY N.A.V.  
AGGRAVATED BY EXPOSURE.....

**SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS HAZARDS IDENTIFICATION**

HAZARDOUS INGREDIENTS	C.A.S. #	%	TLV	LD50	LC50
POTASSIUM HYDROXIDE	1310-58-3	7 - 13	ACGIH, (C) 2 MG/M3.	N.AV.	N.AV.
SODIUM HYPOCHLORITE	7681-52-9	1 - 5	N.AV.	8200 MG/KG, (ORAL, RAT) >10000 MG/KG, (DERMAL, RABBIT)	N.AV.
P(AA/NAHSO3)NA SALT	68479-09-4	1 - 5	>5000 MG/KG (ORAL, RAT)	>5000 MG.KG (DERMAL, RABBIT)	N.AV.
TETRAPOTASSIUM PYROPHOSPHATE	7320-34-5	3 - 7	IN SOLUTION.	>1000 MG/KG, (ORAL, RABBIT) >4640 MG/KG, (DERMAL, RABBIT)	N.AV.

**SECTION 04: FIRST AID MEASURES**

SKIN CONTACT..... IN CASE OF CONTACT, IMMEDIATELY FLUSH SKIN WITH PLENTY OF WATER FOR AT LEAST 30 MINUTES. GET MEDICAL ATTENTION.

EYE CONTACT.....	WASH EYES WITH WATER FOR A MINIMUM OF 30 MINUTES OR UNTIL NO EVIDENCE OF THE CHEMICAL REMAINS. HOLD EYELIDS OPEN DURING FLUSHING. SEEK IMMEDIATE MEDICAL ATTENTION.
INHALATION.....	REMOVE PERSON TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GET IMMEDIATE MEDICAL ATTENTION.
INGESTION .....	RINSE MOUTH WITH WATER. DRINK PLENTY OF WATER OR FRUIT JUICE. DO NOT INDUCE VOMITING. DO NOT GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. IF VOMITING OCCURS SPONTANEOUSLY, KEEP HEAD BELOW HIPS TO PREVENT ASPIRATION OF LIQUID INTO THE LUNGS. SEEK IMMEDIATE MEDICAL ATTENTION.
NOTES TO PHYSICIAN.....	DUE TO THE SEVERELY IRRITATING OR CORROSIVE NATURE OF THE MATERIAL, SWALLOWING MAY LEAD TO ULCERATION AND INFLAMMATION OF THE UPPER ALIMENTARY TRACT WITH HEMORRHAGE AND FLUID LOSS. ALSO, PERFORATION OF THE ESOPHAGUS OR STOMACH MAY OCCUR, LEADING TO MEDIASTITIS OR PERITONITIS AND THE RESULTANT COMPLICATIONS.

### SECTION 05: FIRE FIGHTING MEASURES

CONDITIONS OF FLAMMABILITY .....	NON-FLAMMABLE.
MEANS OF EXTINCTION/EXTINGUISHING MEDIA: ..	USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE.
FLASH POINT.....	N.AP.
UPPER FLAMMABLE LIMIT (% BY VOLUME).....	N.AV.
LOWER FLAMMABLE LIMIT (% BY VOLUME).....	N.AV.
AUTO-IGNITION TEMPERATURE .....	N.AV.
SPECIAL FIRE FIGHTING PROCEDURES.....	FIREFIGHTERS SHOULD WEAR NIOSH/MSHA APPROVED SELF-CONTAINED BREATHING APPARATUS AND FULL PROTECTIVE CLOTHING.
UNUSUAL FIRE AND EXPLOSION HAZARDS.....	KEEP CONTAINERS COOL TO PREVENT RUPTURE AND RELEASE OF MATERIAL. CLOSED CONTAINERS MAY EXPLODE IN FIRE. THIS MATERIAL IS CORROSIVE TO ALL HUMAN TISSUE. IT WILL REACT VIOLENTLY HAZARDS WITH MANY ORGANIC CHEMICALS, ESPECIALLY NITROCARBONS AND CHLOROCARBONS. CAUSTIC POTASH REACTS WITH ZINC, ALUMINUM, TIN, AND OTHER ACTIVE METALS LIBERATING FLAMMABLE HYDROGEN GAS. DILUTION WITH WATER EVOLVES LARGE AMOUNT OF HEAT.
EXPLOSION DATA .....	N.AV.
SENSITIVITY TO MECHANICAL IMPACT .....	N.AV.
SENSITIVITY TO STATIC DISCHARGE .....	N.AV.
HAZARDOUS COMBUSTION PRODUCTS .....	CHLORINE. OXYGEN. OXIDES OF SODIUM.

### SECTION 06: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES.....	PROTECTIVE CLOTHING AND EQUIPMENT MUST BE WORN BY CLEAN-UP PERSONNEL. CONTAIN SPILLAGE OR LEAK IN SUITABLE CONTAINER OR CONTAIN IN A HOLDING AREA. DO NOT ALLOW DRAINAGE TO SEWERS, STREAMS OR STORM CONDUITS. RECOVER WITH VACUUM EQUIPMENT SUCH AS A SEPTIC TANK TRUCK OR NEUTRALIZE WITH DILUTED (WEAK) ACID SOLUTIONS AND FLUSH WITH WATER. AVOID SPLASHING OR MISTING WHICH COULD INCREASE HEALTH HAZARDS. NOTE: PLANNING AHEAD IS ESSENTIAL FOR HANDLING SPILLS. PROPER EQUIPMENT AND TRAINED EMPLOYEES SHOULD BE READILY AVAILABLE TO CORRECT A SPILL SITUATION.
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### SECTION 07: HANDLING AND STORAGE

HANDLING PROCEDURES AND EQUIPMENT.....	FOR INDUSTRIAL USE ONLY. HANDLE AND OPEN CONTAINERS WITH CARE. AVOID CONTACT WITH EYES, SKIN AND CLOTHING. DO NOT INGEST. AVOID INHALATION OF CHEMICAL. EMPTY CONTAINERS MAY CONTAIN HAZARDOUS PRODUCT RESIDUES. KEEP THE CONTAINERS CLOSED WHEN NOT IN USE. PROTECT AGAINST PHYSICAL DAMAGE. USE APPROPRIATE PERSONNEL PROTECTIVE EQUIPMENT. WHEN
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STORAGE REQUIREMENTS.....	DILUTING, ADD THIS PRODUCT TO WATER IN SMALL AMOUNTS TO AVOID SPATTERING. NEVER ADD WATER TO THIS MATERIAL. STORE IN A COOL, DRY, WELL-VENTILATED AREA, AWAY FROM HEAT AND IGNITION SOURCES. KEEP AWAY FROM DIRECT SUNLIGHT. STORE AWAY FROM ORGANIC CHEMICALS, METAL POWDERS, CARBIDES, SULFIDES, AND ANY READILY OXIDIZABLE MATERIAL.
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**SECTION 08: EXPOSURE CONTROLS AND PERSONAL PROTECTION**

ENGINEERING CONTROL.....	LOCAL EXHAUST VENTILATION AS NECESSARY TO MAINTAIN EXPOSURES TO WITHIN APPLICABLE LIMITS. MAKE UP AIR SHOULD ALWAYS BE SUPPLIED TO BALANCE AIR EXHAUSTED (EITHER GENERALLY OR LOCALLY). VENTILATION REQUIRED WHEN SPRAYING OR APPLYING IN A CONFINED AREA. VENTILATION SHOULD BE EXPLOSION PROOF. ELIMINATE IGNITION SOURCES.
PERSONAL PROTECTIVE EQUIPMENT SKIN PROTECTION .....	IMPERVIOUS GLOVES. NEOPRENE GLOVES. NITRILE GLOVES. RUBBER GLOVES. NEOPRENE COATED APRON OR CHEMICAL RESISTANT CLOTHING. IMPERVIOUS BOOTS.
EYE/FACE PROTECTION .....	CHEMICAL SAFETY GOGGLES AND/OR FULL FACE SHIELD TO PROTECT EYES AND FACE, IF PRODUCT IS HANDLED SUCH THAT IT COULD BE SPLASHED INTO EYES.
RESPIRATORY PROTECTION .....	WEAR A NIOSH APPROVED FULL FACEPIECE RESPIRATOR FOR ACID GASES OR A SELF-CONTAINED BREATHING APPARATUS FOR AIR CONCENTRATION LEVELS UP TO 5 PPM. NIOSH APPROVED SUPPLIED AIR RESPIRATOR WHEN AIRBORNE CONCENTRATIONS EXCEED EXPOSURE LIMITS.
WORK/HYGIENE PRACTICES .....	ENSURE THAT EYEWASH STATIONS AND SAFETY SHOWERS ARE PROXIMAL TO THE WORK-STATION LOCATION.

**SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE .....	LIQUID.
APPEARANCE & ODOUR .....	CLEAR COLOUR – CHLORINE ODOUR
ODOUR THRESHOLD .....	N.AV.
SPECIFIC GRAVITY .....	1.204
VAPOUR PRESSURE (MMHG).....	N.AV.
VAPOUR DENSITY (AIR=1) .....	N.AV.
EVAPORATION RATE .....	N.AV.
BOILING POINT .....	93°C
FREEZING/MELTING POINT .....	-12°C
PH .....	14
SOLUBILITY IN WATER (% W/W).....	SOLUBLE.
COEFFICIENT OF WATER/OIL DISTRIBUTION .....	N.AV.

**SECTION 10: STABILITY AND REACTIVITY**

STABILITY .....	STABLE UNDER NORMAL OPERATING CONDITIONS.
CONDITIONS TO AVOID.....	N.AV.
INCOMPATIBILITY (MATERIALS TO AVOID).....	ACIDS. AMMONIA. STRONG OXIDIZERS. REDUCING AGENTS. METALS. ORGANICS CHEMICALS, HYDROCARBONS, HALOCARBONS. ALUMINUM ALLOYS. COPPER. COPPER ALLOYS. NICKEL.
HAZARDOUS DECOMPOSITION PRODUCT .....	CHLORINE. OXYGEN. OXIDES OF SODIUM. OXIDES OF POTASSIUM, OXIDES OF PHOSPHORUS. THERMAL DECOMPOSITION MAY YIELD ACRYLIC MONOMERS.
HAZARDOUS POLYMERIZATION .....	WILL NOT OCCUR.

**SECTION 11: TOXICOLOGICAL INFORMATION**

EXPOSURE LIMITS.....	SEE SECTION 3.
LD50.....	SEE SECTION 3.
LC50.....	SEE SECTION 3.
IRRITANCY OF MATERIAL .....	SEE SECTION 2.
SENSITIZATION TO PRODUCT.....	N.AV.

CARCINOGENICITY.....	SODIUM HYPOCHLORITE SOLUTIONS ARE IARC GROUP 3 CARCINOGENS.
REPRODUCTIVE TOXICITY .....	N.AV.
TERATOGENICITY .....	N.AV.
MUTAGENICITY .....	N.AV.
TOXICOLOGICAL SYNERGISTIC PRODUCTS.....	N.AV.
CHRONIC TOXICITY .....	N.AV.

**SECTION 12: ECOLOGICAL INFORMATION**

ECOLOGICAL INFORMATION N.AV.

**SECTION 13: DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL..... IN ACCORDANCE WITH MUNICIPAL, PROVINCIAL AND FEDERAL REGULATIONS.

**SECTION 14: TRANSPORT INFORMATION**

PROPER SHIPPING NAME.....	CORROSINE LIQUIDS, N.O.S. (POTASSIUM HYDROXIDE)
TDG CLASSIFICATION .....	8
UN NUMBER .....	1760
PACKGING GROUP .....	II

**SECTION 15: REGULATORY INFORMATION**

WHMIS CLASSIFICATION .....	D1B, E
CPR COMPLIANCE .....	THIS PRODUCT HAS BEEN CLASSIFIED IN ACCORDANCE WITH THE HAZARD CRITERIA OF THE CANADIAN CONTROLLED PRODUCTS REGULATIONS (CPR) AND THE MSDS CONTAINS ALL THE INFORMATION REQUIRED BY THE CPR.

**SECTION 16: OTHER INFORMATION**

PREPARATION INFORMATION ..... PREPARED BY: REGULATORY AFFAIRS, TELEPHONE - (613)-744-8896  
PREPARATION DATE: JULY 1, 2016

N.AV. = NOT AVAILABLE  
N.AP. = NOT APPLICABLE