

# SAFETY DATA SHEET

PRODUCT: FORCE - FIVE

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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 ..... FORCE - FIVE  
PRODUCT USE ..... QUATERNARY DISINFECTANT  
EMERGENCY PHONE NUMBER..... CANUTECH 613-996-6666

## SECTION 02: HAZARDS IDENTIFICATION



ROUTE OF ENTRY:  
SKIN CONTACT ..... CAUSES SKIN BURNS.  
SKIN ABSORPTION ..... N.AV.  
EYE CONTACT ..... CAUSES EYE BURNS.  
INHALATION..... N.AV.  
INGESTION ..... HARMFUL IF SWALLOWED.  
EFFECTS/SYMPTOMS OF ACUTE EXPOSURE ..... SEE ABOVE.  
EFFECTS/SYMPTOMS OF CHRONIC EXPOSURE .... SEE ABOVE.  
MEDICAL CONDITIONS GENERALLY ..... N.AV.  
AGGRAVATED BY EXPOSURE.....

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

HAZARDOUS INGREDIENTS	C.A.S. #	%	TLV	LD50	LC50
N-ALKYL(C12-16)-N,N-DIMETHYL-N-BENZYLAMMONIUM CHLORIDE	68424-85-1	4 - 8	N.AV.	SEE SECTION 11	SEE SECTION 11
ALCOHOLS, C9-11, ETHOXYLATED	68439-46-3	3 - 10	N.AV.	>2000 MG/KG (ORAL, RAT) 3300 MG/KG (DERMAL, RAT)	N.AV.
TETRASODIUM ETHYLENEDIAMINE TETRAACETATE	64-02-8	1 - 5	N.AV.	3030 Mg/Kg (ORAL, RAT)  >5000 MG/KG (DERMAL, RABBIT)	N.AV.
SILICIC ACID, DISODIUM SALT; DISODIUM TRIOXOSILICATE; SODIUM METASILICATE	6834-92-0	1 - 5	N.AV.	N.AV.	N.AV.

## SECTION 04: FIRST AID MEASURES

SKIN CONTACT ..... AFTER CONTACT WITH SKIN, WASH IMMEDIATELY WITH PLENTY OF SOAP AND WATER. CALL A PHYSICIAN IMMEDIATELY. TAKE OFF ALL CONTAMINATED CLOTHING IMMEDIATELY.  
EYE CONTACT..... IMMEDIATELY FLUSH EYE(S) WITH PLENTY OF WATER. CALL A PHYSICIAN IMMEDIATELY.  
INHALATION..... MOVE TO FRESH AIR. CALL A PHYSICIAN IMMEDIATELY. IF BREATHING IS IRREGULAR OR STOPPED, ADMINISTER ARTIFICIAL RESPIRATION.  
INGESTION ..... CALL A PHYSICIAN IMMEDIATELY. CLEAN MOUTH WITH WATER AND DRINK AFTERWARDS PLENTY OF WATER. DO NOT INDUCE VOMITING

NOTES TO PHYSICIAN.....	WITHOUT MEDICAL ADVICE. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. N.AV.
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**SECTION 05: FIRE FIGHTING MEASURES**

CONDITIONS OF FLAMMABILITY .....	NON-FLAMMABLE.
MEANS OF EXTINCTION/EXTINGUISHING MEDIA: ..	DRY POWDER, WATER SPRAY, FOAM.
FLASH POINT.....	N.AV.
UPPER FLAMMABLE LIMIT (% BY VOLUME).....	N.AV.
LOWER FLAMMABLE LIMIT (% BY VOLUME).....	N.AV.
AUTO-IGNITION TEMPERATURE .....	N.AV.
SPECIAL FIRE FIGHTING PROCEDURES.....	FIRE FIGHTERS SHOULD WEAR FULL PROTECTIVE CLOTHING, INCLUDING SELF-CONTAINED BREATHING EQUIPMENT. USE WATER SPRAY TO COOL UNOPENED CONTAINERS.
UNUSUAL FIRE AND EXPLOSION HAZARDS.....	N.AV.
EXPLOSION DATA.....	N.AV.
SENSITIVITY TO MECHANICAL IMPACT .....	N.AV.
SENSITIVITY TO STATIC DISCHARGE .....	N.AV.
HAZARDOUS COMBUSTION PRODUCTS .....	HEATING OR FIRE CAN RELEASE TOXIC GAS.

**SECTION 06: ACCIDENTAL RELEASE MEASURES**

ACCIDENTAL RELEASE MEASURES .....	PERSONAL PRECAUTIONS: USE RESPIRATOR WHEN PERFORMING OPERATIONS INVOLVING POTENTIAL EXPOSURE TO VAPOUR OF THE PRODUCT. ENVIRONMENTAL PRECAUTIONS: DO NOT FLUSH INTO SURFACE WATER OR SANITARY SEWER SYSTEM. METHODS FOR CONTAINMENT / METHODS FOR CLEANING UP: CONTAIN SPILLAGE, AND THEN COLLECT WITH NON-COMBUSTIBLE ABSORBENT MATERIAL, (E.G. SAND, EARTH, DIATOMACEOUS EARTH, VERMICULITE) AND PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL / NATIONAL REGULATIONS (SEE SECTION 13).
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**SECTION 07: HANDLING AND STORAGE**

HANDLING PROCEDURES AND EQUIPMENT.....	AVOID CONTACT WITH EYES, SKIN AND CLOTHING. AVOID BREATHING VAPOR. USE WITH ADEQUATE VENTILATION. WASH THOROUGHLY AFTER HANDLING.
STORAGE REQUIREMENTS.....	STORE IN A COOL, DRY, WELL-VENTILATED AREA, AWAY FROM HEAT AND IGNITION SOURCES. PLACE AWAY FROM INCOMPATIBLE MATERIALS. STORE IN ACCORDANCE WITH GOOD INDUSTRIAL PRACTICES.

**SECTION 08: EXPOSURE CONTROLS AND PERSONAL PROTECTION**

ENGINEERING CONTROL.....	IN PROCESSES WHERE DUSTS, AIRBORNE PARTICULATES, MISTS OR VAPORS MAY BE GENERATED, PROPER VENTILATION MUST BE PROVIDED IN ACCORDANCE WITH GOOD VENTILATION PRACTICES.
PERSONAL PROTECTIVE EQUIPMENT:	
SKIN PROTECTION .....	NITRILE RUBBER GLOVES. RUBBER OR PLASTIC APRON. RUBBER OR PLASTIC BOOTS
EYE/FACE PROTECTION .....	WEAR CHEMICAL SPLASH GOGGLES WHERE THERE IS A POTENTIAL FOR EYE CONTACT. USE SAFETY GLASSES WITH SIDE SHIELDS UNDER NORMAL USE CONDITIONS.
RESPIRATORY PROTECTION .....	IN PROCESSES WHERE DUSTS, AIRBORNE PARTICULATES, MISTS OR VAPORS MAY BE GENERATED, A NIOSH JOINTLY APPROVED RESPIRATOR IS ADVISED IN THE ABSENCE OF PROPER ENVIRONMENTAL CONTROLS.
WORK/HYGIENE PRACTICES .....	EYE WASH; SAFETY SHOWER; PROTECTIVE CLOTHING (LONG SLEEVES, COVERALLS OR OTHER, AS APPROPRIATE), WHEN NEEDED, TO PREVENT SKIN CONTACT.

**SECTION 09: PHYSICAL AND CHEMICAL PROPERTIES**

PHYSICAL STATE.....	LIQUID
APPEARANCE & ODOUR.....	GREEN COLOUR – LEMON SCENT
ODOUR THRESHOLD.....	N.AV.
SPECIFIC GRAVITY.....	1.037
VAPOUR PRESSURE (MMHG).....	N.AV.
VAPOUR DENSITY (AIR=1).....	N.AV.
EVAPORATION RATE.....	N.AV.
BOILING POINT.....	100°C
FREEZING/MELTING POINT.....	0°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.....	AVOID ANY SOURCE OF IGNITION.
INCOMPATIBILITY (MATERIALS TO AVOID).....	STRONG ACIDS. MAY BE CORROSIVE TO LEAD AND ALUMINIUM. STRONG OXIDIZERS. STRONG BASES. STRONG REDUCING AGENTS. MAY REACT WITH AMMONIUM SALT SOLUTIONS RESULTING IN EVOLUTION OF AMMONIA GAS. FLAMMABLE HYDROGEN GAS MAY BE PRODUCED ON CONTACT WITH ALUMINUM, TIN, LEAD, AND ZINC. CARBON MONOXIDE GAS MAY BE PRODUCED ON CONTACT WITH REDUCING SUGARS (METSO). ALUMINUM ALLOYS. COPPER. COPPER ALLOYS. NICKEL. REACTIVE METALS (E.G. SODIUM, CALCIUM, ZINC ETC.). MATERIALS REACTIVE WITH HYDROXYL COMPOUNDS. COPPER ALLOYS. STRONG ACIDS. OXIDIZING AGENTS.
HAZARDOUS DECOMPOSITION PRODUCT.....	THERMAL DECOMPOSITION MAY PRODUCE TOXIC VAPORS/FUMES OF HYDROGEN CHLORIDE, AMINES AND OTHER ORGANIC MATERIALS, AND OXIDES OF CARBON AND NITROGEN. OXIDES OF CARBON. HYDROGEN (METSO). ALDEHYDES. FLAMMABLE HYDROCARBON FRAGMENTS.
HAZARDOUS POLYMERIZATION.....	WILL NOT OCCUR.

**SECTION 11: TOXICOLOGICAL INFORMATION**

EXPOSURE LIMITS.....	SEE SECTION 3.
IRRITANCY OF MATERIAL.....	SEE SECTION 3.
LD50.....	N-ALKYL(C12-16)-N,N-DIMETHYL-N-BENZYLAMMONIUM CHLORIDE: ACUTE ORAL TOXICITY : LD50 RAT DOSE: CA. 344 MG/KG; ACUTE DERMAL TOXICITY : LD50 RABBIT DOSE: CA. 3 340 MG/KG.
LC50.....	N.AV.
SENSITIZATION TO PRODUCT.....	N.AV.
CARCINOGENICITY.....	IARC – NONE OF THE INGREDIENTS ARE LISTED.
REPRODUCTIVE TOXICITY.....	N.AV.
TERATOGENICITY.....	N.AV.
MUTAGENICITY.....	N.AV.
TOXICOLOGICAL SYNERGISTIC PRODUCTS.....	N.AV.
CHRONIC TOXICITY.....	N.AV.
DEVELOPMENTAL TOXICITY.....	EDTA AND ITS SODIUM SALTS HAVE BEEN REPORTED TO CAUSE BIRTH DEFECTS IN LABORATORY ANIMALS ONLY AT EXAGGERATED DOSES THAT WERE TOXIC TO THE MOTHER. THESE EFFECTS ARE LIKELY ASSOCIATED WITH ZINC DEFICIENCY DUE TO CHELATION.

**SECTION 12: ECOLOGICAL INFORMATION**

ECOLOGICAL INFORMATION	N.AV.
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**SECTION 13: DISPOSAL CONSIDERATIONS**

WASTE DISPOSAL.....	IN ACCORDANCE WITH MUNICIPAL, PROVINCIAL AND FEDERAL REGULATIONS.
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**SECTION 14: TRANSPORT INFORMATION**

PROPER SHIPPING NAME..... CORROSIVE LIQUIDS, N.O.S. (ALKYL DIMETHYL BENZYLAMMONIUM CHLORIDE)  
TDG CLASSIFICATION ..... 8  
UN NUMBER ..... 1760  
PACKGING GROUP ..... II

**SECTION 15: REGULATORY INFORMATION**

WHMIS CLASSIFICATION ..... 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