

SAFETY DATA SHEET

PRODUCT: LEMON - ONE

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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	LEMON - ONE
PRODUCT USE	LIGHT DUTY CLEANER & DEODORIZER
EMERGENCY PHONE NUMBER.....	CANUTECH 613-996-6666

SECTION 02: HAZARDS IDENTIFICATION



ROUTE OF ENTRY:	
SKIN CONTACT	MAY CAUSE SKIN BURNS.
SKIN ABSORPTION	N.AV.
EYE CONTACT.....	CAUSES EYE BURNS.
INHALATION.....	EXPOSURE TO HIGH VAPOUR CONCENTRATIONS MAY CAUSE RESPIRATORY TRACT IRRITATION, HEADACHE, DIZZINESS, NAUSEA, INCOORDINATION, DROWSINESS AND LOSS OF CONSCIOUSNESS.
INGESTION	HARMFUL IF SWALLOWED.
EFFECTS/SYMPTOMS OF ACUTE EXPOSURE	SEE ABOVE.
EFFECTS/SYMPTOMS OF CHRONIC EXPOSURE....	SEE ABOVE.
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE.....	PRE-EXISTING EYE, SKIN AND RESPIRATORY CONDITIONS MAY BE AGGRAVATED BY EXPOSURE TO THIS PRODUCT.

SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS HAZARDS IDENTIFICATION

HAZARDOUS INGREDIENTS	C.A.S. #	%	TLV	LD50	LC50
ISOPROPYL ALCOHOL	67-63-0	5 - 10	200 PPM TWA-ACGIH 400 PPM STEL-ACGIH.	12870 MG/KG (DERMAL, RABBIT) 4710 MG/KG (ORAL, RAT)	12000 PPM/8H (IHL, RAT)
ALCOHOLS, C9-11, ETHOXYLATED	68439-46-3	3 - 10	N.AV.	>2000 MG/KG (ORAL, RAT) 3300 MG/KG (DERMAL, RAT)	N.AV.
N-ALKYL(C12-16)-N,N-DIMETHYL-N-BENZYLAMMONIUM CHLORIDE	68424-85-1	1 - 5	N.AV.	SEE SECTION 11	SEE SECTION 11

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.....	REMOVE FROM AREA TO FRESH AIR. IF NOT ARTIFICIAL ION. IF VICTIM IS HAVING TROUBLE BREATHING, GIVE SUPPLEMENTAL OXYGEN, IF AVAILABLE. GET IMMEDIATE MEDICAL ATTENTION.
INGESTION	CALL A PHYSICIAN IMMEDIATELY. CLEAN MOUTH WITH WATER AND DRINK AFTERWARDS PLENTY OF WATER. DO NOT INDUCE VOMITING WITHOUT MEDICAL ADVICE. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.
NOTES TO PHYSICIAN.....	IF SYMPTOMS SUCH AS LOSS OF GAG REFLEX, CONVULSIONS OR UNCONSCIOUSNESS OCCUR BEFORE VOMITING, GASTRIC LAVAGE WITH A CUFFED ENDOTRACHEAL TUBE SHOULD BE CONSIDERED.

METABOLISM OF ISOPROPANOL FORMS ACETONE, WHICH MAY BE DETECTED IN THE URINE AND EXPIRED AIR. IN CONTRAST TO DIABETIC ACIDOSIS, ACIDOSIS WILL OCCUR IN THE ABSENCE OF HYPERGLYCEMIA. HEMODIALYSIS SHOULD BE CONSIDERED IN SEVERE ACUTE INTOXICATIONS.

SECTION 05: FIRE FIGHTING MEASURES

CONDITIONS OF FLAMMABILITY	FLAMMABLE,
MEANS OF EXTINCTION/EXTINGUISHING MEDIA: ..	ALCOHOL FOAM. CARBON DIOXIDE. DRY CHEMICAL.
FLASH POINT	47.1 (C).
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. VAPOURS FORM A FLAMMABLE/EXPLOSIVE MIXTURE WITH AIR BETWEEN UPPER AND LOWER FLAMMABLE LIMITS. DO NOT ENTER CONFINED FIRE SPACE WITHOUT ADEQUATE PROTECTIVE CLOTHING AND AN APPROVED POSITIVE PRESSURE SELF-CONTAINED BREATHING APPARATUS. EVACUATE HAZARD AREA. USE WATER TO COOL FIRE EXPOSED CONTAINERS. CONTAINERS MAY EXPLODE IN HEAT OR FIRE. VAPOURS MAY CONCENTRATE IN CONFINED AREAS. CONTAINERS EXPOSED TO INTENSE HEAT FROM FIRES SHOULD BE COOLED WITH WATER TO PREVENT VAPOUR PRESSURE BUILD UP WHICH COULD RESULT IN CONTAINER RUPTURE. CONTAINER AREAS EXPOSED TO DIRECT FLAME CONTACT SHOULD BE COOLED WITH LARGE QUANTITIES OF WATER AS NEEDED TO PREVENT WEAKENING OF CONTAINER STRUCTURE. FIGHT FIRE FROM MAXIMUM DISTANCE. ALWAYS STAY AWAY FROM ENDS OF CONTAINERS DUE TO EXPLOSIVE POTENTIAL. FLAMMABLE.
UNUSUAL FIRE AND EXPLOSION HAZARDS.....	CARBON MONOXIDE MAY BE EVOLVED IF INCOMPLETE COMBUSTION OCCURS. VAPORS ARE HEAVIER THAN AIR AND MAY ACCUMULATE IN LOW AREAS. VAPORS MAY TRAVEL ALONG THE GROUND TO BE IGNITED AT DISTANT LOCATIONS. USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS AND STRUCTURES. CLOSED CONTAINERS MAY EXPLODE IN FIRE. ALWAYS STAY AWAY FROM ENDS OF CONTAINERS DUE TO EXPLOSIVE POTENTIAL. DO NOT ALLOW RUNOFF TO ENTER WATERWAYS.
EXPLOSION DATA.....	N.AV.
SENSITIVITY TO MECHANICAL IMPACT	N.AV.
SENSITIVITY TO STATIC DISCHARGE	N.AV.
HAZARDOUS COMBUSTION PRODUCTS	SEE SECTION 10.

SECTION 06: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES	ELIMINATE ALL SOURCES OF IGNITION. ISOLATE HAZARD AREA AND RESTRICT ACCESS. TRY TO WORK UP WIND OF SPILL. AVOID DIRECT CONTACT WITH MATERIAL. SATURATED CLOTHING SHOULD BE IMMEDIATELY REMOVED TO AVOID FLAMMABILITY HAZARD. WEAR APPROPRIATE BREATHING APPARATUS (IF APPLICABLE) AND PROTECTIVE CLOTHING. STOP LEAK ONLY IF SAFE TO DO SO. DIKE AND CONTAIN LAND SPILLS; CONTAIN WATER SPILLS BY BOOMING. USE WATER FOG TO KNOCK DOWN VAPOURS; CONTAIN RUN-OFF. FOR LARGE SPILLS REMOVE BY MECHANICAL MEANS AND PLACE IN CONTAINERS. ABSORB RESIDUE OR SMALL SPILLS WITH ABSORBENT MATERIAL AND REMOVE TO NON-LEAKING CONTAINERS FOR DISPOSAL. RECOMMENDED MATERIALS: SAND OR EARTH. FLUSH AREA WITH WATER TO REMOVE TRACE RESIDUE. DISPOSE OF RECOVERED MATERIAL AS NOTED UNDER DISPOSAL CONSIDERATIONS.
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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. FLAMMABLE. DO NOT CUT, DRILL, GRIND, WELD OR PERFORM SIMILAR EQUIPMENT OPERATIONS ON OR NEAR CONTAINERS. VAPOURS MAY ACCUMULATE AND TRAVEL TO DISTANT IGNITION SOURCES AND FLASHBACK. EMPTY CONTAINERS MAY CONTAIN HAZARDOUS PRODUCT RESIDUES. FIXED EQUIPMENT AS WELL AS TRANSFER CONTAINERS AND EQUIPMENT SHOULD BE GROUNDED TO PREVENT ACCUMULATION OF STATIC CHARGE. HOT SURFACES MAY BE SUFFICIENT TO IGNITE LIQUID EVEN IN THE ABSENCE OF SPARKS OR FLAMES. EXTINGUISH PILOT LIGHTS, CIGARETTES AND TURN OFF OTHER SOURCES OF IGNITION PRIOR TO USE AND UNTIL ALL VAPOURS ARE GONE. DO NOT PRESSURIZE DRUM CONTAINERS TO EMPTY THEM. AVOID BREATHING VAPORS AND PROLONGED OR REPEATED CONTACT WITH SKIN. LAUNDER CONTAMINATED CLOTHING PRIOR TO REUSE. USE GOOD PERSONAL HYGIENE. AIR-DRY CONTAMINATED CLOTHING IN A WELL VENTILATED AREA BEFORE LAUNDERING.
STORAGE REQUIREMENTS.....	STORE IN A COOL, DRY, WELL-VENTILATED AREA, AWAY FROM HEAT AND IGNITION SOURCES. USE EXPLOSION-PROOF VENTILATION TO PREVENT VAPOUR ACCUMULATION. CAN ATTACK ALUMINUM AT ELEVATED TEMPERATURE. STORE AT AMBIENT TEMPERATURE.

SECTION 08: EXPOSURE CONTROLS AND PERSONAL PROTECTION

ENGINEERING CONTROL.....	MECHANICAL VENTILATION IS RECOMMENDED FOR ALL INDOOR SITUATIONS TO CONTROL FUGITIVE EMISSIONS. ELECTRICAL AND MECHANICAL EQUIPMENT SHOULD BE EXPLOSION-PROOF. CONCENTRATIONS IN AIR SHOULD BE MAINTAINED BELOW THE RECOMMENDED THRESHOLD LIMIT VALUE IF UNPROTECTED PERSONNEL ARE INVOLVED. MAKE-UP AIR SHOULD ALWAYS BE SUPPLIED TO BALANCE AIR EXHAUSTED (EITHER GENERALLY OR LOCALLY). LOCAL VENTILATION RECOMMENDED WHERE MECHANICAL VENTILATION IS INEFFECTIVE IN CONTROLLING AIRBORNE CONCENTRATIONS BELOW THE RECOMMENDED OCCUPATIONAL EXPOSURE LIMIT. FOR PERSONNEL ENTRY INTO CONFINED SPACES (I.E. BULK STORAGE TANKS) A PROPER CONFINED SPACE ENTRY PROCEDURE MUST BE FOLLOWED INCLUDING VENTILATION AND TESTING OF TANK ATMOSPHERE.
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	IF EXPOSURE EXCEEDS OCCUPATIONAL EXPOSURE LIMITS, USE AN APPROPRIATE NIOSH-APPROVED RESPIRATOR. USE A NIOSH-APPROVED CHEMICAL CARTRIDGE RESPIRATOR WITH ORGANIC VAPOUR CARTRIDGES OR USE A NIOSH-APPROVED SUPPLIED-AIR RESPIRATOR. FOR HIGH AIRBORNE CONCENTRATIONS, USE A NIOSH-APPROVED SUPPLIED-AIR RESPIRATOR, EITHER SELF-CONTAINED OR AIRLINE BREATHING APPARATUS, OPERATED IN POSITIVE PRESSURE MODE.
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.....	YELLOW COLOUR – LEMON SCENT
ODOUR THRESHOLD.....	N.AV.
SPECIFIC GRAVITY.....	~ 0.987
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 6
 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 EXCESSIVE HEAT, OPEN FLAMES AND ALL IGNITION SOURCES.
 INCOMPATIBILITY (MATERIALS TO AVOID)..... STRONG ACIDS. MAY BE CORROSIVE TO LEAD AND ALUMINIUM. STRONG OXIDIZERS. STRONG BASES. STRONG REDUCING AGENTS. REACTIVE METALS (E.G. SODIUM, CALCIUM, ZINC ETC.). MATERIALS REACTIVE WITH HYDROXYL COMPOUNDS. COPPER ALLOYS.
 HAZARDOUS DECOMPOSITION PRODUCT..... STRONG ACIDS. OXIDIZING AGENTS.
 HAZARDOUS POLYMERIZATION THERMAL DECOMPOSITION MAY PRODUCE TOXIC VAPORS/FUMES OF HYDROGEN CHLORIDE, AMINES AND OTHER ORGANIC MATERIALS, AND OXIDES OF CARBON AND NITROGEN. OXIDES OF CARBON. ALDEHYDES. FLAMMABLE HYDROCARBON FRAGMENTS. 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..... ISOPROPYL ALCOHOL TESTED NEGATIVE IN TWO MUTAGENICITY ASSAYS; THE MOUSE MICRONUCLEUS AND CHINESE HAMSTER OVARY ASSAYS.
 REPRODUCTIVE TOXICITY N.AV.
 TERATOGENICITY ISOPROPYL ALCOHOL, WHEN ADMINISTERED ORALLY TO RATS AND RABBITS, PRODUCES REDUCED FETAL BODY WEIGHTS IN RATS ONLY AT DOSES WHICH RESULT IN TREATMENT RELATED TO MATERNAL DEATHS AND PRODUCES NO INDICATION OF FETAL EFFECTS IN RABBITS EVEN AT DOSE WHICH RESULTED IN SIGNIFICANT MATERNAL MORTALITY. ISOPROPYL ALCOHOL PRODUCES NO EVIDENCE OF DEVELOPMENTAL NEUROTOXICITY.
 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..... NOT REGULATED FOR GROUND TRANSPORT
 TDG CLASSIFICATION
 UN NUMBER
 PACKGING GROUP

SECTION 15: REGULATORY INFORMATION

WHMIS CLASSIFICATION B2, D2B
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.A.V. = NOT AVAILABLE
N.A.P. = NOT APPLICABLE