

SAFETY DATA SHEET

PRODUCT: EXTRAK

Page 1

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 EXTRAK
 PRODUCT USE COMMERCIAL CARPET CLEANER
 EMERGENCY PHONE NUMBER CANUTECH 613-996-6666

SECTION 02: HAZARDS IDENTIFICATION



ROUTE OF ENTRY:
 SKIN CONTACT BREIF CONTACT MAY CAUSE SLIGHT SKIN IRRITATION WITH LOCAL REDNESS. REPEATED EXPOSURE MAY CAUSE IRRITATION, EVEN A BURN. MAY CAUSE MORE SEVERE RESPONSE ON COVERED SKIN (UNDER CLOTHING, GLOVES).
 SKIN ABSORPTION PROLONGED SKIN CONTACT TO ANIMALS WHICH ARE LESS SENSITIVE TO HEMOLYSIS, AS ARE HUMANS, DID NOT RESULT IN THE ABSORPTION OF HARMFUL AMOUNTS.
 EYE CONTACT MAY CAUSE SEVERE EYE IRRITATION. MAY CAUSE MODERATE CORNEAL INJURY. EFFECTS MAY INCLUDE DISCOMFORT OR PAIN AND REDNESS. EFFECTS MAY BE SLOW TO HEAL. VAPOR MAY CAUSE EYE IRRITATION EXPERIENCED AS MILD DISCOMFORT AND REDNESS.
 INHALATION..... EXCESSIVE EXPOSURE MAY CAUSE IRRITATION TO UPPER RESPIRATORY TRACT. (NOSE AND THROAT). IN HUMANS, SYMPTOMS MAY INCLUDE: HEADACHE. IN ANIMALS, EFFECTS HAVE BEEN REPORTED ON THE FOLLOWING ORGANS: BLOOD (HEMOLYSIS). SECONDARY EFFECTS TO THE KIDNEY AND LIVER. HUMAN RED BLOOD CELLS HAVE BEEN SHOWN TO BE SIGNIFICANTLY LESS SENSITIVE TO HEMOLYSIS THAN THOSE OF RODENTS AND RABBITS.
 INGESTION MODERATE TOXICITY IF SWALLOWED. SMALL AMOUNTS SWALLOWED INCIDENTAL TO NORMAL HANDLING OPERATIONS ARE NOT LIKELY TO CAUSE INJURY; HOWEVER, SWALLOWING LARGER AMOUNTS MAY CAUSE INJURY. IN ANIMALS, EFFECTS HAVE BEEN REPORTED ON THE FOLLOWING ORGANS: BLOOD (HEMOLYSIS). SECONDARY EFFECTS TO THE KIDNEY AND LIVER. HUMAN RED BLOOD CELLS HAVE BEEN SHOWN TO BE SIGNIFICANTLY LESS SENSITIVE TO HEMOLYSIS THAN THOSE OF RODENTS AND RABBITS. MASIVE INGESTION OF ETHYLENE GLYCOL MONOBUTYL ETHER (ATTEMPTED SUICIDES) MAY PRODUCE METABOLIC ACIDOSIS AND SUBSEQUENT SECONDARY EFFECTS SUCH AS HEMOLYSIS, CENTRAL NERVOUS SYSTEM AND KIDNEY EFFECTS.
 EFFECTS/SYMPTOMS OF ACUTE EXPOSURE REFER TO ROUTE OF ENTRY.
 EFFECTS/SYMPTOMS OF CHRONIC EXPOSURE IN LONG-TERM ANIMAL STUDIES WITH ETHYLENE GLYCOL BUTYL ETHER, SMALL BUT STATISTICALLY SIGNIFICANT INCREASES IN TUMORS WERE OBSERVED IN MICE BUT NOT RATS. THE EFFECTS ARE NOT BELIEVED TO BE RELEVANT TO HUMANS. IF THE MATERIAL IS HANDLED IN ACCORDANCE WITH PROPER INDUSTRIAL HANDLING, EXPOSURES SHOULD NOT POSE A CARCINOGENIC RISK TO MAN. HAS BEEN TOXIC TO THE FETUS IN LAB ANIMALS AT DOSES TOXIC TO THE MOTHER. IN ANIMAL STUDIES, EFFECTS ON REPRODUCTION HAVE BEEN SEEN ONLY AT DOSES THAT PRODUCED SIGNIFICANT TOXICITY TO THE PARENT ANIMALS.
 MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE..... N.AV.

SECTION 03: COMPOSITION / INFORMATION ON INGREDIENTS HAZARDS IDENTIFICATION

HAZARDOUS INGREDIENTS	C.A.S. #	%	TLV	LD50	LC50
-----------------------	----------	---	-----	------	------

TETRAPOTASSIUM PYROPHOSPHATE	7320-34-5	5 - 10	IN SOLUTION	SEE SECTION 11	N.AV.
ETHYLENE GLYCOL MONOBUTYL ETHER	111-76-2	5 -10	SEE SECTION 11	SEE SECTION 11	SEE SECTION 11

SECTION 04: FIRST AID MEASURES

SKIN CONTACT	WASH SKIN WITH PLENTY OF WATER.
EYE CONTACT.....	IMMEDIATELY FLUSH EYES WITH WATER; REMOVE CONTACT LENSES, IF PRESENT, AFTER THE FIRST 5 MINUTES, THEN CONTINUE FLUSHING EYES FOR AT LEAST 15 MINUTES. OBTAIN MEDICAL ATTENTION WITHOUT DELAY, PREFERABLY FROM AN OPHTHALMOLOGIST.
INHALATION.....	REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION, PREFERABLY MOUTH-TO-MOUTH. IF BREATHING IS DIFFICULT, OXYGEN SHOULD BE ADMINISTERED BY QUALIFIED PERSONNEL. CALL A PHYSICIAN.
INGESTION	DO NOT INDUCE VOMITING. SLOWLY DILUTE WITH 1-2 GLASSES OF WATER AND SEEK MEDICAL ATTENTION. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.
NOTES TO PHYSICIAN.....	DUE TO STRUCTURAL ANALOGY AND CLINICAL DATA, THIS MATERIAL MAY HAVE A MECHANISM OF INTOXICATION SIMILAR TO ETHYLENE GLYCOL. ON THAT BASIS, TREATMENT SIMILAR TO ETHYLENE GLYCOL INTOXICATION MAY BE OF BENEFIT. IN CASES WHERE SEVERAL OUNCES HAVE BEEN INGESTED, CONSIDER THE USE OF ETHANOL AND HEMODIALYSIS IN THE TREATMENT. CONSULT STANDARD LITERATURE FOR DETAILS OF TREATMENT. IF ETHANOL IS USED, A THERAPEUTICALLY EFFECTIVE BLOOD CONCENTRATION IN THE RANGE OF 100 - 150 MG/DL MAY BE ACHIEVED BY A RAPID LOADING DOSE FOLLOWED BY A CONTINUOUS INTRAVENOUS INFUSION. CONSULT STANDARD LITERATURE FOR DETAILS OF TREATMENT. 4-METHYL PYRAZOLE (ANTIZOL) IS AN EFFECTIVE BLOCKER OF ALCOHOL DEHYDROGEN ASE AND SHOULD BE USED IN THE TREATMENT OF ETHYLENE GLYCOL, DI- OR TRIETHYLENE GLYCOL, ETHYLENE GLYCOL BUTYL ETHER, OR METHANOL INTOXICATION IF AVAILABLE. FOMEPIZOLE PROTOCOL (BRENT, J. ET AL., NEW ENGLAND JOURNAL OF MEDICINE, FEB 8, 2001, 344:6, P. 424-9): LOADING DOSE 15 MG/KG IV, FOLLOW BY BOLUS DOSE OF 10 MG/KG EVERY 12 HOURS; AFTER 48 HOURS, INCREASE BOLUS DOSE TO 15 MG/KG EVERY 12 HOURS. CONTINUE FOMEPIZOLE UNTIL SERUM METHANOL, EG, DEG, OR TEG ARE UNDETECTABLE. THE SIGNS AND SYMPTOMS OF POISONING INCLUDE ANION GAP METABOLIC ACIDOSIS, CNS DEPRESSION, RENAL TUBULAR INJURY, AND POSSIBLE LATE STAGE CRANIAL NERVE INVOLVEMENT. RESPIRATORY SYMPTOMS, INCLUDING PULMONARY EDEMA, MAY BE DELAYED. PERSONS RECEIVING SIGNIFICANT EXPOSURE SHOULD BE OBSERVED 24-48 HOURS FOR SIGNS OF RESPIRATORY DISTRESS. MAINTAIN ADEQUATE VENTILATION AND OXYGENATION OF THE PATIENT. IN SEVERE POISONING, RESPIRATORY SUPPORT WITH MECHANICAL VENTILATION AND POSITIVE END EXPIRATORY PRESSURE MAY BE REQUIRED. IF LAVAGE IS PERFORMED, SUGGEST ENDOTRACHEAL AND/OR ESOPHAGEAL CONTROL. DANGER FROM LUNG ASPIRATION MUST BE WEIGHED AGAINST TOXICITY WHEN CONSIDERING EMPTYING THE STOMACH. IF BURN IS PRESENT, TREAT AS ANY THERMAL BURN, AFTER DECONTAMINATION. TREATMENT OF EXPOSURE SHOULD BE DIRECTED AT THE CONTROL OF SYMPTOMS AND THE CLINICAL CONDITION OF THE PATIENT.

SECTION 05: FIRE FIGHTING MEASURES

CONDITIONS OF FLAMMABILITY	SEE FLASH POINT.
MEANS OF EXTINCTION/EXTINGUISHING MEDIA: ..	WATER FOG OR FINE SPRAY. DRY CHEMICAL FIRE EXTINGUISHERS. CARBON DIOXIDE FIRE EXTINGUISHERS. FOAM. ALCOHOL RESISTANT FOAMS (ATC TYPE) ARE PREFERRED. GENERAL

STORAGE REQUIREMENTS..... EXHAUST VENTILATION TO CONTROL AIRBORNE LEVELS BELOW THE EXPOSURE GUIDELINES. SPILLS OF THESE ORGANIC MATERIALS ON HOT FIBROUS INSULATIONS MAY LEAD TO LOWERING OF THE AUTOIGNITION TEMPERATURES POSSIBLY RESULTING IN SPONTANEOUS COMBUSTION.
 STORE IN THE FOLLOWING MATERIAL(S): CARBON STEEL, STAINLESS STEEL, TEFLON. DO NOT STORE IN: ALUMINUM, COPPER, GALVANIZED IRON, GALVANIZED STEEL, VITON, NEOPRENE, NITRILE, NATURAL RUBBER.

SECTION 08: EXPOSURE CONTROLS AND PERSONAL PROTECTION

ENGINEERING CONTROL..... PROVIDE GENERAL AND/OR LOCAL EXHAUST VENTILATION TO CONTROL AIRBORNE LEVELS BELOW THE EXPOSURE GUIDELINES.

PERSONAL PROTECTIVE EQUIPMENT:
 SKIN PROTECTION CHEMICAL RESISTANT GLOVES. NOTE: THE SELECTION OF A SPECIFIC GLOVE FOR A PARTICULAR APPLICATION AND DURATION OF USE IN A WORKPLACE SHOULD ALSO TAKE INTO ACCOUNT ALL RELEVANT WORKPLACE FACTORS SUCH AS, BUT NOT LIMITED TO: OTHER CHEMICALS WHICH MAY BE HANDLED, PHYSICAL REQUIREMENTS (CUT/PUNCTURE PROTECTION, DEXTERITY, THERMAL PROTECTION), POTENTIAL BODY REACTIONS TO GLOVE MATERIALS, AS WELL AS THE INSTRUCTIONS/SPECIFICATIONS PROVIDED BY THE GLOVE SUPPLIER. EXAMPLES OF PREFERRED GLOVE BARRIER MATERIALS INCLUDE: BUTYL RUBBER, ETHYL VINYL ALCOHOL LAMINATE (EVAL). EXAMPLES OF ACCEPTABLE GLOVE BARRIER MATERIALS INCLUDE: NATURAL RUBBER (LATEX), NEOPRENE, NITRILE/BUTADIENE RUBBER (NITRILE OR NBR), POLYVINYL CHLORIDE (PVC OR VINYL), VITON.

CLOTHING..... USE PROTECTIVE CLOTHING CHEMICALLY RESISTANT TO THIS MATERIAL. SELECTION OF SPECIFIC ITEMS SUCH AS FACESHIELD, GLOVES, BOOTS, APRON, OR FULL-BODY SUIT WILL DEPEND ON OPERATION. REMOVE CONTAMINATED CLOTHING IMMEDIATELY, WASH SKIN AREA WITH SOAP AND WATER, AND LAUNDRY CLOTHING BEFORE REUSE OR DISPOSE OF PROPERLY.

EYE/FACE PROTECTION USE CHEMICAL GOGGLES. IF EXPOSURE CAUSES EYE DISCOMFORT, USE A FULL-FACE RESPIRATOR.

RESPIRATORY PROTECTION ATMOSPHERIC LEVELS SHOULD BE MAINTAINED BELOW THE EXPOSURE GUIDELINE. THE FOLLOWING SHOULD BE EFFECTIVE TYPES OF AIR-PURIFYING RESPIRATORS: ORGANIC VAPOUR CARTRIDGE. WHEN RESPIRATORY PROTECTION IS REQUIRED FOR CERTAIN OPERATIONS, USE AN APPROVED AIR-PURIFYING RESPIRATOR.

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..... BLUE COLOUR – DISTINCT SMELL

ODOUR THRESHOLD..... N.AV.

SPECIFIC GRAVITY..... 1.045

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 11

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..... CONTACT WITH INCOMPATIBLE MATERIALS.

INCOMPATIBILITY (MATERIALS TO AVOID).....	AVOID CONTACT WITH STRONG ACIDS, STRONG BASES, STRONG OXIDIZERS.
HAZARDOUS DECOMPOSITION PRODUCT.....	DECOMPOSITION PRODUCTS CAN INCLUDE AND ARE NOT LIMITED TO: ALDEHYDES, KETONES, ORGANIC ACIDS. OXIDES OF PHOSPHORUS, OXIDES OF POTASSIUM. OXIDES OF NITROGEN.
HAZARDOUS POLYMERIZATION	WILL NOT OCCUR.

SECTION 11: TOXICOLOGICAL INFORMATION

EXPOSURE LIMITS.....	ETHYLENE GLYCOL MONOBUTYL ETHER: 20 PPM TWA ACGIH.
LD50.....	ETHYLENE GLYCOL MONOBUTYL ETHER: PERORAL: RAT; LD50 = 470 - 3,000 MG/KG. PERCUTANEOUS: RAT; 2,270 MG/KG; RABBIT; LD50 = 99 - 610 MG/KG. GUINEA PIG; LD50 = >2,000 MG/KG. TETRAPOTASSIUM PYROPHOSPHATE: 4640 MG/KG (DERMAL, RABBIT); >1000 MG/KG (ORAL, RABBIT).
LC50.....	ETHYLENE GLYCOL MONOBUTYL ETHER: VAPOR STUDY RAT; 7 HOUR; LC50 = 700 PPM.
IRRITANCY OF MATERIAL	SEE SECTION 2.
SENSITIZATION TO PRODUCT	N.AV.
CARCINOGENICITY.....	N.AV.
REPRODUCTIVE TOXICITY	ETHYLENE GLYCOL MONOBUTYL ETHER: IN ANIMAL STUDIES, EFFECTS ON REPRODUCTION HAVE BEEN SEEN ONLY AT DOSES THAT PRODUCED SIGNIFICANT TOXICITY TO THE PARENT ANIMALS.
TERATOGENICITY.....	N.AV.
MUTAGENICITY.....	N.AV.
TOXICOLOGICAL SYNERGISTIC PRODUCTS.....	N.AV.
CHRONIC TOXICITY.....	SEE SECTION 2.
DEVELOPMENTAL TOXICITY	ETHYLENE GLYCOL MONOBUTYL ETHER: HAS BEEN TOXIC TO THE FETUS IN LAB ANIMALS AT DOSES TOXIC TO THE MOTHER. DID NOT CAUSE BIRTH DEFECTS IN LABORATORY ANIMALS.
SIGNIFICANT DATA WITH POSSIBLE	ETHYLENE GLYCOL MONOBUTYL ETHER: REPEATED DOSE TOXICITY: IN ANIMALS, EFFECTS HAVE BEEN REPORTED ON RELEVANCE TO HUMANS THE FOLLOWING ORGANS: BLOOD (HEMOLYSIS). SECONDARY EFFECTS TO THE KIDNEY AND LIVER. HUMAN RED BLOOD CELLS HAVE BEEN SHOWN TO BE SIGNIFICANTLY LESS SENSITIVE TO HEMOLYSIS THAN THOSE OF RODENTS AND RABBITS.
RELEVANCE TO HUMANS	

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.....	N.AP.
TDG CLASSIFICATION	NOT REGULATED
UN NUMBER	N.AP.
PACKGING GROUP	N.AP.

SECTION 15: REGULATORY INFORMATION

WHMIS CLASSIFICATION	B3. D1A. 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.AV. = NOT AVAILABLE

N.AP. = NOT APPLICABLE