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MATERIAL SAFETY DATA SHEET

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K-G SPRAY-PAK INC.
8001 KEELE STREET, P.O BOX 89
CONCORD; L4K 1Y8; ONTARIO
CANADA 905-669-9855

PRODUCT: 1808-15-007/25 02-020 GLASS CLEANER 539G



Section 01: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MANUFACTURER K-G SPRAY-PAK INC.
8001 KEELE STREET P.O. BOX 89
ONTARIO
CANADA
L4K 1Y8
CANUTEC EMERGENCY #: 1-613-996-6666(24HR)

PRODUCT NAME 1808-15-007/25 02-020 GLASS CLEANER 539G
CHEMICAL FAMILY DETERGENT.
MOLECULAR WEIGHT NOT APPLICABLE.
CHEMICAL FORMULA NOT APPLICABLE.
TRADE NAMES & SYNONYMS 1808-15-007/25 02-020 GLASS CLEANER 539G
PRODUCT USES CLEANER.
FORMULA/LAB BOOK # F 15-039C.

Section 02: COMPOSITION/INFORMATION INGREDIENTS

Hazardous Ingredients	%	Exposure Limit	C.A.S.#	LD/50, Route, Species	LC/50 Route, Species
ETHYLENE GLYCOL MONOBUTYL ETHER	1-5	25 ppm	111-76-2	530 - 2616 mg/kg ORAL - RAT	450 ppm (4 hr) INHAL - RAT
ETHANOL (Ethyl Alcohol)	1-5	1000 ppm	64-17-5	7060 mg/kg ORAL - RAT	31,623 ppm (4 hr) INHAL - RAT
ISOBUTANE	1-5	1000 ppm	75-28-5	NOT APPLICABLE	142,500 ppm (4h) INHAL - RAT
PROPANE	0.1-1.0	1000 ppm	74-98-6	>5000 mg/kg DERMAL-RABBITS	NOT AVAILABLE

Section 03: HAZARDS IDENTIFICATION

ROUTE OF ENTRY:
INGESTION ETHYLENE GLYCOL MONOBUTYL ETHER MAY CAUSE RED BLOOD CELL HEMOLYSIS AND POSSIBLE LIVER AND KIDNEY DAMAGE. MAY CAUSE HEADACHE, NAUSEA, VOMITING AND WEAKNESS.

INHALATION INHALATION OF SOLVENTS MAY CAUSE IRRITATION. PROPELLANT IS A SIMPLE ASPHYXANT.

EYE CONTACT ETHYLENE GLYCOL MONOBUTYL ETHER CAUSES MODERATE IRRITATION AND POSSIBLE CORNEAL INJURY.

SKIN ABSORPTION ETHYLENE GLYCOL MONOBUTYL ETHER PENETRATES SKIN READILY. FREQUENT OR WIDE SPREAD CONTACT MAY RESULT IN THE ABSORPTION OF POTENTIALLY HARMFUL AMOUNTS. SIGNS AND SYMPTOMS OF TOXICITY ARE SIMILAR TO THOSE OF SWALLOWING.

SKIN CONTACT MAY CAUSE IRRITATION.

EFFECTS OF ACUTE EXPOSURE DIZZINESS, NAUSEA, IRRITATION TO SKIN & EYES.

EFFECTS OF CHRONIC EXPOSURE ETHYLENE GLYCOL MONOBUTYL ETHER MAY CAUSE HEMOLYSIS OF THE RED BLOOD CELLS LEADING TO POSSIBLE LIVER AND KIDNEY DAMAGE.
. SOLVENTS MAY CAUSE DEFATTING DERMATITIS

EXPOSURE LIMIT OF MATERIAL SEE SECTION 2.

Section 04: FIRST AID MEASURES

EMERGENCY FIRST AID PROCEDURE IN CASE OF CONTACT, IMMEDIATELY FLUSH SKIN OR EYES WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES; FOR EYES, GET MEDICAL ATTENTION. IN CASE OF INGESTION, DO NOT INDUCE VOMITING. CALL A PHYSICIAN OR POISON CONTROL CENTRE IMMEDIATELY AND HAVE NAMES OF INGREDIENTS AVAILABLE.

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Section 05: FIRE FIGHTING MEASURES

AUTO IGNITION TEMPERATURE (°C)..... 245-422.
 SPECIAL PROCEDURES..... WATER FROM FOGGING NOZZLES MAY BE USED TO COOL CLOSED CONTAINERS TO PREVENT BUILD-UP IF EXPOSED TO EXTREME TEMPERATURES. FULL PROTECTIVE EQUIPMENT INCLUDING SELF CONTAINED BREATHING APPARATUS SHOULD BE WORN IN A FIRE INVOLVING THIS MATERIAL.
 FLAMMABILITY..... NOT A FLAMMABLE PRODUCT (AS PER CANADIAN AEROSOL REGULATIONS).
 IF YES, UNDER WHICH CONDITIONS?..... EXCESSIVE HEAT, SPARKS AND OPEN FLAME.
 EXTINGUISHING MEDIA..... WATER, CARBON DIOXIDE, DRY CHEMICAL, FOAM.
 FLASH POINT (C), TAG CLOSED CUP..... LOWEST KNOWN VALUE IS ETHANOL @ 13C
 UPPER FLAMMABLE LIMIT..... 19.
 (% BY VOLUME)
 LOWER FLAMMABLE LIMIT..... 1.1.
 (% BY VOLUME)
 EXPLOSION DATA
 SENSITIVITY TO STATIC DISCHARGE. NOT APPLICABLE.
 SENSITIVITY TO IMPACT..... NOT APPLICABLE.
 HAZARDOUS COMBUSTION PRODUCTS..... HYDROCARBON FUMES AND SMOKE. CARBON MONOXIDE WHERE COMBUSTION IS INCOMPLETE.
 AEROSOL FLAME PROJECTION CLASSIFIED AS:..... 0 cm.

Section 06: ACCIDENTAL RELEASE MEASURES

LEAK/SPILL..... REMOVE ALL SOURCES OF IGNITION. USE AN INERT ABSORBENT MATERIAL, AND NON-SPARKING TOOLS. VENTILATE AREA. PREVENT FROM ENTERING A WATERCOURSE.

Section 07: HANDLING AND STORAGE

STORAGE NEEDS..... KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAMES.
 ENGINEERING CONTROLS..... VENTILATION - LOCAL (MECHANICAL IF USED INDOORS ON A CONTINUOUS BASIS).
 HANDLING PROCEDURES AND EQUIPMENT..... STORE IN A COOL, WELL VENTILATED AREA NOT TO EXCEED 50 DEG C.
 SYNERGISTIC MATERIALS..... NONE KNOWN.

Section 08: EXPOSURE CONTROLS/PERSONAL PROTECTION

GLOVES/TYPE..... WEAR CHEMICAL RESISTANT GLOVES.
 RESPIRATORY/TYPE..... IF USED INDOORS ON A CONTINUOUS BASIS, USE OF A CARTRIDGE TYPE RESPIRATOR (NIOSH/MSHATC 23C OR EQUIVALENT) IS RECOMMENDED.
 EYE/TYPE..... SAFETY GLASSES.
 FOOTWEAR/TYPE..... NOT NORMALLY REQUIRED.
 OTHER/TYPE..... NOT REQUIRED.

Section 09: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE..... AEROSOL.
 APPEARANCE..... CLEAR LIQUID.
 ODOR..... FRAGRANT.
 ODOR THRESHOLD..... NOT AVAILABLE.
 VAPOUR PRESSURE(Psig)-AEROSOL..... 30 - 40.
 @ 20 C
 BOILING POINT (°C)(CONC)..... 78-171.
 EVAPORATION RATE..... LESS THAN 1.
 n-BUTYL ACETATE = 1
 VAPOUR DENSITY (AIR=1)..... GREATER THAN 1.
 (BY WEIGHT)
 SOLUBILITY IN WATER g/L (20°C)..... COMPLETE.
 pH..... 10.75-11.0.
 SPECIFIC GRAVITY (LIQUID)..... 0.96-1.00.
 COEFFICIENT OF WATER/OIL DIST..... NOT AVAILABLE.
 FREEZING POINT: (°C)..... NOT AVAILABLE.
 AEROSOL PERCENT VOLATILE..... 99-100.
 (BY WEIGHT).
 SPECIFIC GRAVITY (AEROSOL)..... 0.92-0.96.

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Section 10: STABILITY AND REACTIVITY

HAZARDOUS PRODUCTS OF DECOMPOSITION..... HYDROCARBON FUMES AND SMOKE. CARBON MONOXIDE WHERE COMBUSTION IS INCOMPLETE.

CHEMICAL STABILITY:
 YES..... UNDER NORMAL CONDITIONS.
 NO, WHICH CONDITIONS?..... NOT APPLICABLE.

COMPATIBILITY WITH OTHER SUBSTANCES:
 NO, WHICH ONES?..... STRONG OXIDIZING AGENTS.
 REACTIVITY CONDITIONS?..... NOT APPLICABLE.
 HAZARDOUS POLYMERIZATION..... WILL NOT OCCUR.

Section 11: TOXICOLOGICAL INFORMATION

REPRODUCTIVE EFFECTS..... NO INFORMATION IS AVAILABLE AND NO ADVERSE REPRODUCTIVE EFFECTS ARE ANTICIPATED.

IRRITANCY OF MATERIAL..... SKIN/EYE IRRITANT.
 SENSITIZING CAPABILITY OF MATERIAL..... UNKNOWN.

CARCINOGENICITY OF MATERIAL..... THE INGREDIENTS OF THIS PRODUCT ARE NOT LISTED AS CARCINOGENS BY NTP, (NATIONAL TOXICOLOGY PROGRAM), NOT REGULATED AS CARCINOGENS BY OSHA, (OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION), AND HAVE NOT BEEN EVALUATED BY IARC, (INTERNATIONAL AGENCY FOR RESEARCH ON CANCER), NOR BY ACGIH (AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGIENISTS).

TERATOGENICITY..... NO INFORMATION IS AVAILABLE AND NO ADVERSE TERATOGENIC EFFECTS ARE ANTICIPATED.

MUTAGENICITY..... NO INFORMATION IS AVAILABLE AND NO ADVERSE MUTAGENIC EFFECTS ARE ANTICIPATED.

Section 12: ECOLOGICAL CONSIDERATIONS

ENVIRONMENTAL..... NOT AVAILABLE.

Section 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL..... DO NOT PUNCTURE OR INCINERATE CONTAINERS, EVEN WHEN EMPTY. DISPOSE OF IN ACCORDANCE WITH LOCAL, PROVINCIAL AND FEDERAL REGULATIONS.

Section 14: TRANSPORTATION INFORMATION

T.D.G. CLASSIFICATION..... CONSUMER COMMODITY (AEROSOLS, UN1950, CLASS 2.2).
 D.O.T. CLASSIFICATION..... CONSUMER COMMODITY, ORM-D.

Section 15: REGULATORY INFORMATION

CANADIAN REGULATIONS:

WHMIS CLASSIFICATION..... A,D1A,D2B.
 CNFC SECTION 3.3.5..... LEVEL 1.
 CEPA (Canadian Environmental Protection ... Act) ALL SUBSTANCES IN THIS PRODUCT ARE LISTED ON THE CANADIAN DOMESTIC SUBSTANCES LIST (DSL) OR ARE NOT REQUIRED TO BE LISTED.

U.S. REGULATIONS:

HMIS RATING HEALTH..... 2 MODERATE HAZARD.
 HMIS RATING FLAMMABILITY..... 1 SLIGHT HAZARD.
 HMIS RATING REACTIVITY..... 0 MINIMAL HAZARD.
 HMIS RATING PERSONAL PROTECTION..... B.
 NFPA CODE 30B..... LEVEL 1.
 SARA 313 INFORMATION:..... THIS PRODUCT CONTAINS THE FOLLOWING SUBSTANCES SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372:

. CAS #:	*111-76-2	CHEMICAL NAME:	ETHYLENE
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CALIFORNIA PROPOSITION 65:..... THE FOLLOWING STATEMENT IS MADE IN ORDER TO COMPLY WITH THE CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT OF 1986:
 . WARNING: THIS PRODUCT DOES NOT INTENTIONALLY CONTAIN ANY CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS OR OTHER REPRODUCTIVE HARM.

CHEMICAL NAME:	. CAS #:	. N/A.
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Section 15: REGULATORY INFORMATION

TSCA (Toxic Substances Control Act)..... ALL COMPONENT OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY. ANY IMPURITIES PRESENT IN THIS PRODUCT ARE EXEMPT FROM LISTING.
VOC (w/w%)..... 9-10.

Section 16: OTHER INFORMATION

NOTICE FROM K-G SPRAY- PAK INC THE INFORMATION ON THIS MATERIAL SAFETY DATA SHEET IS PROVIDED BY K-G SPRAY PAK INC. FREE OF CHARGE. WHILE BELIEVED TO BE RELIABLE, IT IS INTENDED FOR USE BY SKILLED PERSONS AT THEIR OWN RISK. K-G SPRAY PAK INC. ASSUMES NO RESPONSIBILITY FOR EVENTS RESULTING OR DAMAGES INCURRED FROM ITS USE. THE INFORMATION ON THIS MATERIAL SAFETY DATA SHEET RELATES ONLY TO THE SPECIFIC MATERIAL DESIGNATED HEREIN AND DOES NOT RELATE TO USE IN COMBINATION WITH ANY OTHER MATERIAL OR IN ANY PROCESS.

PREPARED BY..... Regulatory Affairs
PREPARATION DATE May23/13