

MATERIAL SAFETY DATA SHEET

*This Material Safety Data Sheet complies with the Canadian Controlled Product Regulations.
Abbreviations used: N/ap., Not applicable, N/av., Not available, N/est., Not established, TLV, Threshold Limit Value,*

SECTION 1 - IDENTIFICATION

PRODUCT IDENTIFIER:	Laundry Detergent 8X Concentrate, High Efficiency (HE)
PRODUCT USE:	Front and Top loading Domestic Laundry Machines Regular and High Efficiency Machine use. For Environmentally Sensitive Areas and Superior Performance Use
SUPPLIER:	Gemini Packaging Limited 150-12071 Jacobson Way, Richmond, British Columbia, Canada, V6W 1L5 Telephone: (604) 278-3455 Emergency Telephone: (604) 813-4688

SECTION 2 - COMPOSITION

HAZARDOUS INGREDIENTS	% (W/W)	CAS NUMBER	LD50	LC50	EXPOSURE LIMITS
Borax	0.5-2.5	12179-04-3	3200-3500 mg/kg (oral/rat)	> 2 mg/L	1 mg/m ³ (ACGIH TLV/TWA)
Ethylene Glycol	1.0-10.0	107-21-1	4700 mg/kg (oral/rat)	200 mg/m ³ (rat, inhal. /4 Hrs.)	125 mg/m ³ (skin, ACGIH TLV/TWA)
Tall Oil Fatty Acids	5.0-15.0	61790-12-3	5000 mg/kg (oral/rat)	N/est.	10 mg/m ³ (ACGIH TLV/TWA)
Natural Fatty Alcohol Ethoxylates Blend	45-65	68439-46-3	1400 mg/kg (oral/rat)	N/est.	N/est.
Ethyl Alcohol	1.0-10.0	64-17-5	7060 mg/kg (oral/rat)	31623 ppm (rat, inhal. /4 Hrs.)	1880 mg/m ³ (1000 ppm) (ACGIH TLV/TWA)

SECTION 3 - HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW:

Causes mild skin irritation in humans

Sealed containers may rupture from exposure to intense heat.

EFFECTS OF SHORT-TERM (ACUTE) EXPOSURE:

INHALATION: Product can be irritating to the nose, throat and respiratory tract.

SKIN CONTACT: May cause symptoms of skin irritation such as reddening, swelling, rash, scaling, or blistering. Excessive contact may cause drying by absorption of moisture and oils.

EYE CONTACT: Causes eye irritation.

INGESTION: This product causes irritation, a burning sensation of the mouth and throat and abdominal pain.

EFFECTS OF LONG-TERM (CHRONIC) DIRECT EXPOSURE:

Prolonged skin contact may cause dermatitis.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Pre-existing eye, skin, respiratory tract disorders may be aggravated by exposure.

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SECTION 4 - FIRST AID MEASURES

INHALATION: Move victim to fresh air. Give artificial respiration, if indicated.

SKIN CONTACT: Remove contaminated clothing, and wash affected area thoroughly with water. If an irritation develops or persists, seek medical attention.

EYE CONTACT: Flush contaminated eye(s) with lukewarm, gently flowing water for at least 20 minutes while holding eyelids open. Take care not to contaminate unaffected eye. If irritation persists repeat the flushing process. Do not transport victim until the recommended flushing time has been achieved unless flushing can continue during transport. Obtain medical attention.

INGESTION: Never give anything by mouth if victim is unconscious, rapidly losing consciousness or convulsing. Rinse mouth thoroughly with cold water and give ½ to 1 glass of milk or carbonated beverage to dilute ingested material. If vomiting occurs naturally, have victim lean forward, head down, to reduce risk of aspiration. Obtain immediate medical attention.

GENERAL COMMENTS: All first-aid procedures should be reviewed by a safety officer with the product and its conditions of use in the workplace.

SECTION 5 - FIRE FIGHTING MEASURES

FLASH POINT:	N/ap.	LOWER FLAMMABILITY LIMITS:	N/ap.	SENSITIVITY TO MECHANICAL IMPACT:	Not expected to be sensitive
AUTOIGNITION TEMPERATURE:	N/ap.	UPPER FLAMMABILITY LIMITS:	N/ap.	SENSITIVITY TO STATIC DISCHARGE:	Not expected to be sensitive

EXTINGUISHING MEDIA: Use media suitable to control surrounding fire.

FIRE FIGHTING INSTRUCTIONS: Fire-exposed containers should be kept cool by spraying water. Excessive heat may cause containers to rupture, and release of product. Spilled material will cause floors and walkways to become slippery. Firefighters must use self-contained breathing apparatus and protective clothing.

HAZARDOUS COMBUSTION PRODUCTS: Packaging plastic emits acrid smoke and irritating fumes under very high temperature.

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) HAZARD INDEX:

HEALTH: 0 - Only minor injury if ingested, **FLAMMABILITY: 0** – Stable and will not burn unless heated excessively. **REACTIVITY: 0** - Normally stable, but can become unstable at elevated temperatures and pressures. **SPECIFIC HAZARDS:** N/ap.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PROTECTION: Avoid direct prolonged contact with material.

ENVIRONMENTAL PRECAUTIONS: Prevent release of large volumes of concentrate into waterways and sewers.

REMEDIATION MEASURES: For spills, a vacuum is preferred. Remove combustibles. If container is leaking, place in over pack immediately to minimize loss to environment. Notify applicable government authority if release is a reportable large quantity and could adversely affect the environment. 500 liters or more.

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SECTION 7 - HANDLING AND STORAGE

HANDLING: Use good housekeeping practices. Avoid contamination of product with other materials. Use in a well ventilated area.

STORAGE: Store away from combustibles and incompatible materials in tightly closed containers. Keep containers in a cool area.

SECTION 8 - EXPOSURE CONTROLS AND PERSONAL PROTECTION

ENGINEERING CONTROLS: NA

RESPIRATORY PROTECTION: No respiratory protection is warranted under normal use conditions.

EXPOSURE LIMITS: See Section 2.

SKIN PROTECTION: None.

EYE AND FACE PROTECTION: Use chemical safety goggles if there is a possibility of splashing in the eyes.

OTHER: n/a.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Pale yellow clear liquid	MELTING POINT:	N/ap.
ODOUR:	Lily flower fragrance	BOILING POINT:	105°C
pH:	6.0 to 8.0	CRITICAL TEMPERATURE:	N/ap.
VAPOUR PRESSURE:	N/ap.	RELATIVE DENSITY:	1.050 to 1.100
SOLUBILITY:	Soluble in water	PARTION COEFFICIENT: n-OCTANOL/WATER	N/av.
VAPOUR DENSITY:	N/ap.	EVAPORATION RATE:	N/ap.

SECTION 10 - STABILITY AND REACTIVITY

CHEMICAL STABILITY: Normally stable.

HAZARDOUS POLYMERIZATION: Will not undergo hazardous polymerization.

INCOMPATIBILITY: Reducing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Packaging decomposes at very high temperatures releasing acrid smoke and irritating fumes.

SECTION 11 - TOXICOLOGICAL INFORMATION

ROUTE(S) OF ENTRY: Inhalation (minor), Ingestion (minor), Eye contact (medium), Skin contact (minor)

ACUTE EXPOSURE:

No specific animal data is available for this product.

CHRONIC EXPOSURE:

No specific animal data is available for this product.

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SECTION 11 - TOXICOLOGICAL INFORMATION (con't)

IRRITANCY:	SENSITIZATION:
Expected to cause skin, eye, respiratory and gastrointestinal irritation.	Not reported.
MUTAGENICITY:	REPRODUCTIVE TOXICITY:
Not reported.	N/A
TERATOGENICITY:	CARCINOGENICITY:
Not reported.	Not listed as a carcinogen by ACGIH, IARC or OSHA
POTENTIAL FOR ACCUMULATION:	SYNERGISTIC PRODUCTS:
Not expected to accumulate.	None known.

SECTION 12 - ECOLOGICAL INFORMATION

ECOTOXICITY: May be temporarily harmful to aquatic life in spill area in large quantities of concentrate.

ENVIRONMENTAL FATE: This product has considerable solubility and mobility in water and non-significant absorption into soil.

SECTION 13 - DISPOSAL CONSIDERATIONS

DEACTIVATING CHEMICALS: Carefully dilute the product with water and allow the solution to naturally degrade.

WASTE DISPOSAL METHODS: Place used and contaminated material and packaging into suitable containers and dispose of as controlled waste. Review and follow all local, provincial, and federal regulations.

SECTION 14 - TRANSPORT INFORMATION

ICAO TECHNICAL INSTRUCTIONS, IMDG CODE: N/ap.

US HAZARDOUS MATERIALS REGULATIONS: N/ap.

CANADIAN TRANSPORTATION OF DANGEROUS GOODS REGULATIONS: N/ap.

SECTION 15 - REGULATORY INFORMATION

CANADIAN FEDERAL REGULATIONS:

CEPA, DOMESTIC SUBSTANCES LIST: All ingredients are listed.

WHMIS CLASSIFICATION: Not a controlled product subject to WHMIS requirements.

SECTION 16 - OTHER INFORMATION

PREPARATION DATE: May 14, 2010

Revision 1 March 25, 2014

PREPARED BY: Gemini Packaging Ltd.

DECLARATION: This Material Safety Data Sheet meets or exceeds all the requirements of the Canadian Controlled Product Regulations.